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PROFESSORS IN RUSH MEDICAL COLLEGE, CHICAGO, ILLINOIS.

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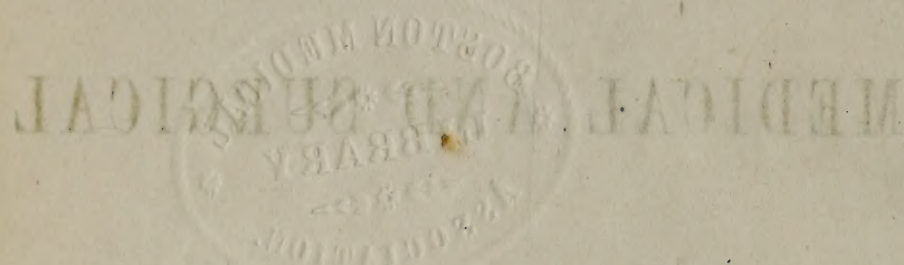
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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

*A Report on Fever.* Read before the Morgan County Medical Society, November 2, 1846: By DAVID PRINCE, M. D., of Jacksonville, Illinois.

The practitioner accustomed to see disease as manifested in the primitive and transitional geological regions of the north-eastern portion of the United States, will be struck with the comparative rareness, here, of inflammatory affections; and the student who gets his ideas of disease from English authors, and from those who reside along our northern Atlantic coast, will find a great discrepancy between the *book* and the *patient* when he comes to apply his reading to practice. The writer has seen, during the past nine years, but few cases of inflammatory fever, and they were colored to some extent with the malarial agency which prevails every where on our alluvial soil. During the writer's two years' experience in Morgan county, he has not observed any general difference in the severity of the fevers, or their tendency to local affections, though the number of cases, in this region, has seemed to be less the present year than during the preceding. In each of these years, a wet spring has been followed by a long, dry, and hot summer. Nor is the writer aware that any *great* change in the character of disease has

occurred during the last nine years, though the fevers of 1837, 1838, 1839, and 1840, bore depleting treatment better, and manifested less tendency to prostration than those which have fallen under his observation since ; and, as far as he has been able to learn the experience of other physicians, this increased tendency to a typhoid type, has been general throughout this and the adjoining States in the same latitude. This typhoid tendency, with our better knowledge of the therapeutic effects of Sulphate of Quinia, has led to the use of this remedy in doses and under circumstances which were not dreamed of ten years ago. No one now thinks of depending upon *mercurial action* to interrupt the progress of a remitting fever ; but as soon as he has made, by the exhibition of an emetic, a cathartic, or an emeto-cathartic, an impression upon the glands whose secretion has been deranged, he endeavors, at once, to interrupt the paroxysms by the free use of Quinia, alone or in some combination ; supposing that, if he does not succeed in arresting the fever, he will obviate that *sinking tendency* which has so often disappointed the hopes of both patient and physician.

Experience also proves that those local determinations so often witnessed in fever, in which the brain, the liver, the spleen, and sometimes the lungs, are made the passive recipients of a larger quantity of blood than they are wont to contain, are best removed by agents which promptly control the fever, and that any treatment of the local affection, unless accompanied by that which will cut short the fever, or tend to do it, will be ineffectual, and that as often as a remission or a chill followed by a febrile paroxysm is allowed to recur, there is great danger of an aggravation of the local plethora, and risk, also, of the formation of new congestions, disturbing the action of organs whose functions are essential to life. And if these congestions are passive—and passive they must be—to be removed by brandy, quinia, and opium, assisted, when the brain is affected, by cold, which probably acts as an indirect stimulant upon the blood-vessels—in what are they radically different from those general internal congestions which take place every time a chill occurs, and which, in the cases manifesting the greatest *sinking tendency*, are not entirely recovered from with the re-action which follows ?



So much is this congestion like inflammation, while so little of its real nature does it possess, that the writer has witnessed a cerebral congestion, accompanied by all the distressing symptoms of phrenitis, subside in a few hours, leaving no trace of its existence behind, while, as the cerebral symptoms disappeared, others, equally resembling those of inflammation, occurred in the abdomen, and as the patient died previously to the subsidence of these, the autopsy exhibited a distinctly hyperematous appearance beneath the peritoneal, and the mucous surfaces, though the brain showed no mark of disease.

Though the different varieties of fever of malarial origin run into each other, so that if any standard of division is established, it is extremely difficult to fix the location of many examples which come before us, yet it will be convenient to divide them into four classes, which have again almost as many varieties as there are individual cases.

I. *Of Simple Intermittent Fever* it is not my design now to speak. Suffice it to say it seems to be owing to the same causes which produce remittents, or to causes similar though less intense; and the same treatment which cures the one is applicable, with modifications, to the other; and an intermittent is frequently a precursor of a remittent or a sequel to it.

II. *Remitting Fever of the Simple Form* begins, usually, with a chill, and is followed by an exacerbation of fever which subsides, and after a remission of the febrile symptoms, another exacerbation follows the next day without being preceded by any distinctly marked chill. Sometimes the remitting is preceded by an intermitting fever of three or four paroxysms, and then the chilly *usher* disappears and the fever acquires a more formidable character. These paroxysms recur daily, sometimes more aggravated every alternate day, until the fever subsides, in from seven to fourteen days, in death or convalescence.

III. *Typhoid Form.* In the third form of fever, the patient is usually unwell, for some time before the occurrence of either chill or fever; and when the patient is interrogated he will hardly confess that he has either a chill or a fever, but says they are "all mixed up together;" feeling cold creeping sensations at the same time that hot flashes pass in different

directions, and frequently one sensation is quickly followed by the other. The friends or spectators frequently doubt whether there is any fever except, perhaps, an "*inward fever*," such is the absence of heat which is so often thought to be the essential idea of fever. The secretions, however, are arrested or perverted, the tongue is dry and coated, but not thickly, and soon becomes dark, and sometimes almost black; occasionally the coating cracks, moistens, peels off, and, in protracted cases, it is followed by a new coating.

Though the fever of this form has, as seen by the writer, been generally capable of control by appropriate and energetic treatment, it does not yield for several days, and, before subsiding, acquires almost a continued form, and so gradually does it let go its grasp, that it is difficult to decide when the fever ends or convalescence begins. When inappropriately treated, or left to itself, a typhoid tendency is manifest, favoring a fatal termination, and far more likely to do it when the disease is treated on a mercurial and depleting plan than when it is left entirely to its own tendencies. To this form physicians have sometimes given the name *Congestive*, seldom applying the term, however, till the occurrence of the latter stages of the affection, but *Typhoid Remittent* would certainly be a better appellation.

IV. *Congestive Form.* Congestive Fever applies far more appropriately to the course of symptoms now to be enumerated. The attack generally occurs without much premonition, and often suddenly, in circumstances of exposure to powerful malarious influence. Whether there is much chilliness or not, the prostration is very great from the beginning, and such a degree of stupor takes place, in the great majority of instances, as greatly to obscure the intellectual manifestations, or entirely to obstruct or conceal them. The heart is variously influenced, sometimes making a hundred and thirty beats in a minute, while, at other times, the heart's action seems unaltered or the pulsations are even fewer than natural, with an entire absence of febrile excitement. Whatever other changes in the pulse may be noticed, however, a strong pulse rarely or never occurs in this form of disease, for, though a considerable degree of fulness exist, the finger, placed firmly upon the artery, easily arrests the current.



Difficult and imperfect inspiration, with evident deficiency of the circulation at the surface, and sometimes a leaden hue of the skin, indicate a state of congestion of the internal organs and a want of power to send the blood, with its wonted energy and freedom, throughout the system. The remissions after, amount to a perfect intermission, when, in common language, we have, instead of *Congestive Fever* applied to the remitting form, the appellation of *Congestive Chill*, and some writers have, not without reason, proposed to use the simple word *Congestion* for these states when unaccompanied by evident fever. Of the remitting form of this variety, the writer has seen but few instances, and they were in the midst of summer, and in localities the most unhealthy, though, in more southern latitudes, this form of disease seems to be of frequent occurrence. The intermitting form, (*Congestive Chill*), is not unfrequently seen in this climate and in this region, and is more rapidly fatal than the remitting, though less probably so if treated early and energetically. Without treatment, life is often terminated in the second or third paroxysm, and even sometimes in the first. The treatment of these diseases is, at present, far from being uniform, though there seems, now, to be an approximation to a more effectual plan than any with which our *classic* authors were acquainted. How different is the treatment almost every practitioner employs from that recommended by those writers whom he has consulted, and still continues to consult, in every doubtful case that may occur, and from whom, on most subjects, instruction may be drawn. Allow me to introduce one or two cases in illustration of this remark, and as a foundation for the inferences which will follow.

July 10, 1846. Alexander Walker, aged about 35, a farmer. Attacked on the 8th with fever, the excitement rising in the fore part of the day, obtaining its maximum in the latter part, and subsiding at night.

At 7 o'clock, A. M., third day since the attack. Says he has no fever, but has passed a restless night, having slept but little. Pulse slightly accelerated and moderately full. Skin moist. Much headache and pain in the back. Tongue coated, of a yellowish white color, and complains that every-

thing tastes bitter. Sighs frequently. He says he has been freely catharticised.

*Treatment.*—Sulphate of quinia gr. xx, calomel gr. x; to be followed in one hour by quinia gr. x, opium gr. iij, ipecac. gr. j. Cook's pills to be taken at night. Vomited about an hour after taking the second dose, but thinks he did not throw up much of the medicine. He had no pain or other uneasy sensation, but sweated most profusely, though the pulse became considerably increased in frequency and fullness during the period corresponding with the febrile exacerbation. The cathartic operated only slightly.

*July 11.* During the day there was considerable fever, with headache, restlessness, and thirst. Ten grains of quinia were administered in the morning, followed, in the latter part of the day, by tinct. rhubarb and aloes and calomel, and, as this did not operate, castor oil was given at night with the effect of procuring free evacuations.

*July 12.* Ten gr. of quinia were given early in the morning, repeated once in two hours, till three doses were administered. Had no fever, or headache, or other "misery." Pulse slow and full. Bathed in profuse perspiration except the hands and feet, which are dry and warm, while the head and trunk feel decidedly cool to the touch, in consequence, doubtless, of the rapid evaporation from the surface. A bystander was solicitous on account of the coldness, but, on being apprized of the difference between a cool body with warm hands and feet, and the reverse, he seemed satisfied. Eyes dull, and there seems, from the beginning, to have been a congestion of them with the so-called *determination* of blood to the head. Tongue rapidly cleaning.

*July 13.* Has had no more febrile excitement. Tongue entirely clean. Conjunctiva clear. Has lost his solicitude with regard to his own case, and is in bright hope of recovery. No further treatment was necessary. The sedative power of quinia, in full dose, was strikingly manifest in the complete absence of morbid excitement, with a return of the secretories and capillaries to the performance of their proper offices.

*Sept. 6th, 1845.* Alfred Williams, aged about twenty-five, after severe labor and considerable exposure, was attacked with chilly sensations and feverish blushes, with head-ache,



pains in the extremities, bitter taste, fevered tongue, and feeling of great prostration.

*Sept.* 7th, 10, A. M. Says his bowels moved yesterday, and have done so regularly without medicine. Pulse 100 and moderately full. Skin dry, though not extremely so. Thirst considerable, and every thing has a bitter taste.

*Treatment.*—Emetic of Ipecacuanha gr. xx, Tartrate of Antimony and Potash gr. iv. This operated freely, bringing away a large quantity of yellow viscid substance, (bile,) and producing two or three stools. Perspiration occurred during emesis, but the febrile dryness very soon returned.

At 7, P. M., directed—

R.—Sulph. Quinia gr. xv,  
Acetate of Morphia gr. iss,  
Pulv. Doveri gr. xij.

*Sept.* 8th, 7, A. M. Bowels moved once or twice soon after the administration of the above prescription. Slept well during the night, though he frequently waked, and occasionally asked for water. Head-ache much diminished. The dense coating on the tongue seemed somewhat lessened. Pulse 72 and full. Skin a little drier than natural. At the time of taking the above he was slightly delirious, but this morning he is entirely rational. Directed Sulph. Quinia gr. x, Dover's Powder gr. xx.

*Sept.* 8th, 5, P. M. Rested in the morning after taking the medicine, and then got up and walked out of doors, vomited, and during two or three hours after noon had considerable thirst, with an aggravation of his other febrile symptoms. Fever has now somewhat subsided. Pulse 100, moderately full, and less quick than this morning. Tongue more coated, and complains of extremely unpleasant taste. Administered six Cook's pills.

*Sept.* 8th, 9, P. M. Vomited soon after taking the pills, and the stomach remained irritable, while the febrile excitement increased. Administered Ipecac. gr. xx, Tart. Ant. et Potash gr. iv, and directed—

R.—Quinia gr. x,  
Opium gr. iij,  
Ipecac. gr. ij.

to be taken after the free evacuation of the stomach and bowels.

Sept. 9th, 5, A. M. He vomited freely, but was restless till the medicine operated as a cathartic, five or six times, about two o'clock. He took the above at half-past two, after which he rested quietly. Skin rather dry, though moist in places. Tongue more coated than yesterday. Thirst moderate, not much uneasiness of head. Pulse 80, moderately full and not quick. Directed—

R.—Quinia gr. x,  
Pulv. Dov. gr. xx,  
Acetate of Morphia gr. i.

to be taken at 7 o'clock. At 12 o'clock ten grains of Quinia and twenty of Dovers Powder were given, and at night the dose was repeated, with the addition of ten grains of Calomel, and at two o'clock the last dose was repeated.

Sept. 10th. During the day, yesterday, he remained thirsty, though the deeply coated tongue was moist, and there was a slight appearance of *cleaning*. He was much nauseated in the night, and a sinapism was applied to the epigastrium.

Sept. 10th, 7, A. M. Gave—

R.—Ext. Colocynth comp. gr. xx,  
Sulph. Quinia gr. x.

This produced four or five evacuations about ten o'clock. Took a teaspoonful of Paregoric after the last discharge, which was thin, and at two, P. M. Gave—

R.—Quinia gr. x,  
Dov. Pow. gr. xx.

and with the exception of a short period of nausea, with the vomiting of a small quantity of yellowish green, viscid, and bitter substance, (bile,) he passed a very comfortable evening. The skin has not been moist to-day, but has presented a very natural appearance. The coating on the tongue, though dense, and, in the middle, brown, seems to be loosening at the tip and sides. Directed that—

R.—S. Quinia gr. v,  
Pulv. Dov. gr. x.

should be given at 9 and repeated at 3 o'clock.

Sept. 11th. He vomited the first dose and did not take the second; was much nauseated all night. Pulse 80. Skin not



unnatural. Tongue rapidly cleaning, and over the portions denuded of the coating it appears of a brighter red than natural. Says he feels very well. Drank small quantities of brandy during the day. Administered at night Calomel and Rhubarb, of each five grains, to be followed in the morning by Quinia and Dover's Powders, of each ten grains.

*Sept. 12th.* Though the bowels did not move, the Quinia and Dover's Powder were given about three o'clock, and he passed a very comfortable night. Although the general appearance was not materially altered, the thirst had nearly disappeared, and the tongue is more clean.

*Sept. 15th.* From this time he continued to rapidly improve; his appetite soon came, and no more active treatment was resorted to. Brandy and Quinia, in small doses, were occasionally taken as a tonic.

He is to-day walking about. Prescribed a decoction of gentian, cham. flowers, orange peel and serpentaria. He became speedily restored to his usual strength.

Though, in the division of disease previously made, this should be considered a severe case of remitting fever, in its simplest form, yet in the loose nomenclature, which many physicians are in the habit of using, it would probably be called a case of *congestive* fever.

The effect of an active antiperiodic treatment to break in upon the regularity of the remission and exacerbations when it does not fully and at once control the disease, is exemplified in this case, as well as the sedative influence of large doses of Quinia, and the failure of large doses of opium to produce, in the condition of the system existing in many cases of fever, the effects we are accustomed to expect when the remedy is administered in health. A similar modification of effect is also noticed in quinia, for although tinnitus aurium and headache, with a feeling of distension of the eyes are common effects of this remedy, though less so in doses of ten grains than of two, yet while the system is laboring under a *smothered* fever with restlessness, head-ache, pains in the back and extremities, and general torpor of the secretories, we frequently see none of these unpleasant symptoms manifested, but a complete removal of all the unpleasant sensations the patient experienced, before taking the medicine. This happy effect of

quinia seems to be favored by combination with a full narcotic dose of opium, or its principal alkli morphia; thus, by combining five, ten, fifteen or twenty grains of sulphate of quinia with from a fourth of a grain to a grain of sulphate or acetate of morphia, we have a combination which acts far more mildly and pleasantly than would either of the remedies singly. Not unfrequently patients who have tossed, and groaned, and fretted for a great part of the time for twenty-four or forty-eight hours, have, in the course of an hour, after taking a full dose of quinia and morphia, passed into a pleasant state of waking dreams, with moist tongue and skin, with soft pulse, and in their elysium have forgotten all their sufferings, though they may have assured their physician that they "never could take quinia or opium without the most disagreeable feelings." As it is not every case which demands the remedy in large doses, it is an important inquiry, what is the sign of its necessity? Certainly not the coldness of the chill, nor the heat of the fever, but the nervous prostration and the disturbance of capillary action, resulting in congestion, showing a powerful influence of malarious poison. This conclusion is supported by two facts, often observed by the practitioner, viz:

1st, The most speedily fatal cases are those in which there is little or no chill, and little or no febrile excitement; and, sometimes on the other hand, a diminution of the frequency of the pulse and impairment of muscular power, with torpor of the secretories, without the dryness which would result from febrile reaction, and often there is a relaxation of the cutaneous exhalents resulting in the cold sweat, so generally accompanying the cadaverous countenance, speaking defiance to science and art. And,

2d, The cases which bear the largest doses with no other apparent influence of the remedy, than a silent but effectual restoration of the system to its proper tone and activity, are precisely those dangerous cases just mentioned. Where there is not a powerful impression of malaria upon the system, and a quick sensibility to impressions remain, the medicine does not often operate noiselessly or always sightlessly to the patient, but sights and sounds follow each other in rapid succession. Indeed chill or fever seems not to be at all essential to a malarious disease, which may pursue its course as regularly as



though fever were present, and the writer's own case is in point. After having been exposed to the worst atmospheric influence, presented by the hot season, with irregular sleep, and a deficiency of it, there insidiously crept on, a dimunition of appetite, a coating upon the tongue, general soreness of the muscles, and inability to move the head suddenly without pain, which in about two days resulted in vertigo, and such a feeling of prostration, as entirely forbid further exertion. A high degree of nervous excitement occurred, but this was of short duration; the tongue soon became covered with a dense coating, and under the influence of copious drafts of warm drink, a most profuse sour perspiration occurred. The bowels acted tardily under the influence of mercurial cathartics, and they hardly responded at all to any other. At first the pulse was somewhat accelerated, and once or twice afterwards; but generally the heart's action was perfectly natural, and from beginning to end there were no chilly sensations, nor was there any feeling of fever, but what might be attributed to the use of quinia, which produced a most pleasurable excitement, unalloyed with any of those disagreeable associations which usually characterize reality. Sleep was but little disturbed, and for six days there was a perfect indifference to both food and drink, and there existed no other inducement to take the latter than to fill up an uncomfortable void. During this time the tongue was thickly coated, and an extremely unpleasant taste resulted from it, but upon the seventh day from the beginning of apparent disease, a slight appetite appeared, the tongue began to clean, and a rapid restoration followed. Here was a bilious disease, and nothing afforded so much apparent benefit as a dose of thirty grains of calomel, which produced one or two copious bilious stools. Now this certainly was not a bilious fever, or any other fever, according to the common acceptation of that term. Though the symptoms varied, there were no regular periodic exacerbations and remissions, and consequently the same apparant benefit could not be perceived, which unequivocally follows the use of appropriate remedies in periodical affections. The same remedies were however used, and with seeming advantage.

From what has been said, it probably will not be inferred that the writer thinks lightly of preparatory evacuants before

giving quinia alone or combined; a remedy which seems at the same time, anti-periodic and anti-malarial; for in the great majority of cases, it seems indispensable that a satisfactory and pleasant effect of the remedy must be preceded by an emetic or cathartic, and where a thick coating has appeared upon the tongue in the early stages of the disease, without evidence of mucous irritation, an emetic of four grains of Tart. Antimony and Potassa, with twenty grains of Ipecacuanha have been preferred to a cathartic, but in all other cases the latter has been thought preferable.

To quiet the irritability of the mucous membrane, with the disposition to flatulence so common in fever, oil of turpentine given in doses of a few drops, or in that of one or two drachms, to quicken the action of other cathartics, has seemed more effectual than any thing else which I have seen employed. Its vapor readily diffuses itself through the whole of the alimentary canal, imparting a healthful tone, and stimulating the dilated capillaries to contract.

To quiet the nausea so apt to follow the taking of quinia, a brisk sinapism usually proves effectual, and in consequence of the pretty uniform occurrence of such a condition, the writer has not latterly been in the habit of giving quinia either alone or combined, in doses nearer together than five or six hours; and Ipecac. he has discontinued as an accompaniment for quinia; for, without seeming to increase the diaphoresis resulting from a full dose of quinia and morphia, it greatly augments the most troublesome nausea, and occasionally results in the loss of ten or fifteen grains of valuable medicine, and so offends the stomach that it will not immediately receive another dose.

At a future time the writer may trouble this association with further remarks upon the effects of sulphate of quinia, upon our fevers, and upon the use of other remedies, which have not here been mentioned.

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#### ARTICLE II.

*On the powers of Strychnine in the cure of Chronic Bronchitis.*

By Dr. P. HENRY CLARKE, of Port Washington, W. T.

In the treatment of no disease, or class of diseases, have I experienced more difficulty than in bronchial affections. And



the utter failure of the practice, recommended by authors, proves conclusively the absolute necessity of more attention being bestowed upon this subject. With this view, I offer to the consideration of the profession, a few remarks, not however preferring any claim to originality, but rather wishing to impress upon the minds of those afflicted, the actual necessity of making due exertions for relief, notwithstanding such disease may, perhaps, be pronounced incurable.

Strychnine was discovered by Mons. Pellitier and Caven-tou, in the year 1818, and named by them Vauqueline, in honor of that distinguished chemist. After which they changed the name to Strychnine. It is so intensely bitter that it is said to give a decided taste to 600,000 parts of water by weight, and is but sparingly soluble in alcohol. It is one of the most virulent poisons; and, perhaps, inferior to none, except the highly concentrated prussic acid. Majendie killed a dog, by the administration of one eighth of a grain. Its effects are to produce tetanus, and consequent immobility of the thorax, asphyxia and death. The curative effects of Strychnine in cases of Paralysis, both general and partial, as in hemiplegia and paraplegia, also in tetanus, obstinate cases of amenorrhœa, in chronic diarrhœa without pain and with thin serous discharges, which produce exhaustion, and in nearly all the various diseases to which the eye is subject, are too well known to require an insertion here.

My method of administering it is principally in powder, suspended in mucilage as a vehicle, or by making it into pills, preferring either to the tincture, owing to the insolubility of it in alcohol. In anhydrous alcohol it is perfectly insoluble, consequently no tincture can be prepared that will give an equal strength.

Having been afflicted severely for quite a number of years with Bronchitis, and finding no medicines which gave me relief, I was induced to try the effect of strychnine, which resulted in a perfect cure. My symptoms, when I commenced using it, were emaciation, night-sweats, and continued mucous expectoration, attended with cough, at times very severe, after which the muscles of the larynx were so completely relaxed, that I could not utter a sound above a whisper, but unattended with pain. I commenced the use of the

strychnine, as advised, by taking one-twentieth of a grain, suspended in mucilage, three times in a day and increased the dose every third day until I took one-fifth of a grain. I used the remedy about four weeks, and have never experienced any difficulty since. I was much astonished at its results, and more especially at the effects it produced upon the contractility of the muscles of the larynx, as well as upon the muscles of the extremities.

CASE II.—A. B. S., an attorney, after delivering an address, and exercising unusually hard the organs of speech by talking very loud, in returning home was caught in a shower, and drenched to the skin. Immediately after he was attacked with Acute Bronchitis. I knew nothing in regard to his treatment, but it resulted in Chronic Bronchitis, and he was unable to speak, for over three years, above a whisper. I prevailed upon him to make use of strychnine, and gave it in pills made with flour, and ext. liquorice, and one-thirteenth of a grain of strychnine, increased until he took one-eighth of a grain; which amount he continued to take for nearly two months. He now experiences no difficulty in speaking, and thinks he has obtained a complete cure.

CASE III.—E. W. L, Aét. 52, an itinerant preacher, was by degrees entirely deprived of speech, and remained thus for twelve or fifteen years. He had some cough and expectoration, slightly tinged with blood. He was, by my recommendation, last spring, induced to make use of the strychnine. Two or three months since I received a note from him stating that he was not perfectly cured but sufficiently so to be able to speak in public, if he used moderation. After speaking he felt still an oppressive weakness in his chest, and slight tracheal irritation, but not sufficient to produce cough. He was directed to continue the use of strychnine as before. I have not heard from him since.

CASE IV.—A lady afflicted with occasional loss of speech, with neither cough or expectoration, but extreme emaciation, and had as she expressed it, a continued "tickling and hacking." She was ordered to take strychnine. This I gave in tincture, six grs. to the fluid ounce of diluted alcohol. She commenced with three drops three times a day, and



increased as in the other cases. This was attended with the most decided success.

Where there is a local determination of blood to the head it is necessary to deplete until that is removed, before using the strychnine. Morphine, to a certain extent, is an antidote to strychnine. Lemberg introduced three grains of strychnine under the skin of a dog on one side of the spine, and six grains of morphine on the other side, without any visible effects following it; either of which alone would have caused death.

I have seen it used in one well marked case of Phthisis Pulmonalis, but its effects could not be ascertained to my entire satisfaction, as the patient at the same time freely used Wistar's Balsam of Wild Cherry. He recovered rapidly, and was, at the last report that he made me, almost, if not entirely, well. Over two years had elapsed since he used the strychnine. From the effects which it made upon the system, I judged that his recovery was attributable to that remedy alone. His case was hereditary. His father, brother and sister died with that complaint; every one had given him up as incurable. I have never seen any ill effects result from the use of Strychnine, unless perhaps in one case. But so virulent a poison is it, that the utmost precaution is necessary in its administration to prevent accident. The case to which I refer above, was one of complete paralysis. I used the Tinc. in a dose of six drops three times a day, and at the same time used drastic cathartics and venesection. He recovered entirely from the paralysis. In about five months he was taken with an abscess in the thigh, and gangrene immediately followed. I should have been happy to have noticed the appearance of the subsequent disease, but was not aware that he had been sick, until I heard of his demise. Whether the use of the strychnine had any effect in the production of the subsequent disease, or not, I cannot say, but suppose if so it would have developed itself sooner. But in regard to strychnine as a remedy in Bronchial affections, and even in the forming stages of Phthisis Pulmonalis, I have the most implicit confidence in it, and think that the time is not far distant when Pulmonary Consumption shall be stripped of its manifold terrors, by the sanitary influence of this powerful remedial agent.

## ARTICLE III.

*Excrescence on the Eye-Ball — Removal — Recovery:* By J.

EVANS, M. D., Prof. of Obs., &c., in Rush Medical College.

In the fall of 1839, Mr. E., of middle age, a farmer, of sanguine temperament and robust constitution, consulted me in reference to a tumor on the globe of the eye, which had made its appearance in the form of a small pearly spot some two years previously, and had gradually increased in size, notwithstanding numerous washes and escharotic applications, up to this time. It originated upon the sclerotic coat, near its junction with the lucid cornea, in the inner canthus, and extended, in its growth upon the cornea, so far as to be directly over the margin of the pupil when moderately dilated. It was of the size and shape of two-thirds of a pea, white and opaque, though not of the pearly whiteness of the albugenia.

It obstructed vision in the eye by discoloring a portion of the cornea, and interfered with the palpebræ, causing irritation occasionally from the friction produced by their closing over it, which were all the inconveniences caused by it.

On the fourth of September I excised it; but fearing to cut deep lest I should injure the coats of the eye, the whole of the diseased mass was not removed. It was but a short time until it was as large as ever, notwithstanding it was frequently touched with nitrate of silver.

*September 18.* Second operation. I now passed the knife through so as to follow a right line from the base of the tumor on one side to the corresponding point opposite to it, leaving a flat surface upon the globe the size of the base of the excrescence. But, in a few days, a growth appeared in the centre of this space, of the same character and shape of the original one, which attained to about half its size.

*October 13.* Third operation. This was performed in the same manner as before. Having a much smaller base, I ventured to cut deeper and removed all the diseased structure.

There was but little inflammation excited, the patient being subjected to a strict antiphlogistic regimen after each operation.

I did not see the patient for some months, when he in-



formed me that a pimple the size of a pin head had made its appearance, soon after the last operation, upon the disputed territory, but that a *charm* doctor passed his hand over the eye one evening, and nothing had been seen of it since!!!

At first sight this resembled a case of partial staphyloma; but, on minute examination, it was easily distinguished to be a growth upon the surface of the eye.

The substance of the tumor resembled fibro-cartilage.

*January* 1845. Four years after the operations, no sign of a return of the disease. The site of the tumor is marked by a flattened surface, covered with the conjunctiva and healthy, of the size of the base of the original excrescence.

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#### ARTICLE IV.

#### COLLEGE DISPENSARY.

#### *Clinical Lectures before the Class of Rush Medical College.*

[Reported for the Journal by J. R. BRADWAY, M. D., a member of the class.]

The Lectures given upon the different cases which presented themselves at the Dispensary were published in the first and second volumes of this Journal, but were discontinued during the last year on account of the similarity of the cases to those before described. Lately, however, since the adoption of the charity by the public authorities of the county, it has acquired such an extension in its usefulness as to furnish, at all times, new and useful cases for clinical instruction. The lectures given on these will hereafter be regularly reported for this Journal.

CASE I.—*January* 20, 1847. F. D., aged 22 years, a German, of strong robust form, and bilious temperament, had been affected with *jaundice* for about a week, without suffering ill health previous to the attack. After the commencement of the discoloration of the skin, the patient was, for two or three days, troubled with a diarrhœa, with light colored discharges, which, at this time, had ceased. Urine exceedingly high colored, sclerotic coat of the eyes of a saf-

from hue, lucid cornea tinged and the skin of a deep yellow. Complains of no pain, but suffers from nausea almost constantly, especially when in the erect position. Discoloration had increased regularly and rapidly since the onset of the disease.

*Remarks* by Prof. EVANS.—GENTLEMEN: You have here a well marked case of *Jaundice*. It is rather a symptom of certain diseased conditions of the biliary organs, than a disease itself. The pathological condition is this: In health, the bile is eliminated from the blood for the double purpose of purifying the circulating mass and of exerting its peculiar influence on the bowels. When it is not separated and thrown off by the liver, either the bile, as such, or the constituent principles of which it is composed, are retained abnormally in the system, and hence the discoloration. And it is said to exert a narcotic influence, to which is attributed the languor experienced by patients suffering with jaundice. The absence of the natural stimulus furnished to the mucous membrane of the intestines causes irritation, and diarrhœa, with light colored fæces, showing absence of bile, as we have it in the case before us.

Jaundice depends upon an impaired secretion of bile, or an obstruction in its elimination.

There are numerous forms of disease that give rise to jaundice; and you must be extremely careful, here, not to prescribe for the *name*, but for the pathological condition producing the symptoms.

Jaundice may depend upon an organic lesion of the liver, either acute or chronic. In the case before us we have no tenderness over the region in which the liver is situated, which is the best diagnostic symptom of acute disease of the organ. The attack is sudden, with previous good health, and thus the history of the case proves it not to be a chronic lesion of structure. Nor have we the pain in the region of the scapula usually attendant upon structural lesions of the liver; nor yet have we the tumefaction of the liver. It may depend upon inflammation of the duodenum, causing a swelling of the coats of that intestine at the valvular opening of the ductus communis choledochus, so as to obstruct the flow of the bile. But in this case, the symptoms of duodenitis are not present.



It may depend upon disease of the heart. Dr. Graves thinks disease of the liver frequently is the result of disease of the heart. But here the action of the heart is natural, and the circulation is regular. If it were not, we might look out for congestion of the liver as a cause of the jaundice. Congestion of the portal circulation and, consequently, of the liver is a very common cause of functional derangement of this organ in the western country. Here, where disease is so universally a succession of paroxysms of congestion and of re-action, as in the chill and fever, it is not strange that jaundice should be common from functional derangements of the liver. It is not reasonable to expect that the liver should, during these congestions, continue to perform its function healthily. The extreme vascularity of the organ—being endowed with three distinct sets of blood-vessels—those from the portal circle, the hepatic arteries, and the hepatic veins, all of which are without valves to prevent regurgitation—subjects it, more than any other important organ, to suffer from lesions in the circulation. But, in this case, if it depend upon congestion, it must be entirely local, as the patient has been free from any general derangement of the circulation.

Jaundice may depend upon a tumor or abscess being so situated as to compress the biliary or common duct; but this comes on gradually, generally in case of tumors; and the symptoms of the formation of abscess have not been present.

A loaded condition of the duodenum making pressure upon the valvular opening of the common bile duct into that intestine, may give rise to jaundice; but this would give us a tumor in the region of the duodenum, which is not here.

It may depend upon an unhealthy secretion giving rise to obstructions in consequence of the presence, in the ducts, of gall stones, or viscid bile. This is the form of jaundice that is most rapid and sudden in its onset. The presence of gall stones, where they form obstructions to the flow of bile, gives great pain, resembling colic, generally followed by vomiting, which, from its relaxing influence, and the mechanical impetus given the retained bile, often effects relief. But the other form, which we have in the case before us, is attended with no very painful symptom. Nausea, which is very dis-

tressing, generally attends it, as in this case, and sometimes a fit of vomiting gives relief as in case of gall stones.

The probabilities of cure in cases of jaundice, are determined by the nature of the affection upon which the case is dependent. In this case we make a favorable prognosis.

The indications of cure are, to remove obstructions, restore the healthy action of the liver, and give tone to the general system.

By the administration of an emetic of tart. ant. et pot., combined with ipecac., we may, to a certain extent, fill two of these indications—to remove the viscid bile from the duct, and alter and increase the secretion. After the operation of the emetic, the secretion may be promoted by the administration of five grain doses of calomel at intervals of four hours until three are taken, combined with Dover's powder to prevent it from passing off too rapidly by the bowels; this to be followed by castor oil.

*January 22.* The patient returned, much relieved from the sickness of the stomach, the most distressing symptom.

Calomel and Dover's powder repeated, to be followed by castor oil, as before. Patient directed to use tincture of the bark of the root of Wild Cherry, (*Prunus Virginiana*,) half a wine-glassful three times daily.

*January 25.* Patient much improved. Directed to continue the use of the tincture. Under this treatment he was speedily restored to health.

CASE II—*Surgical Clinic*.—A. B., aged 32, of Will county, Illinois, applied January 1, 1847, for relief from a dropsical affection, and also on account of a fistulæ of the anus under which he had been laboring for eight years. The serous effusion was removed by the use of the decoction of the bark of wahoo—a new remedy, with the properties of which the readers of the Journal are already acquainted, and whose good effects have often been conspicuous during the past winter in the treatment of effusions following upon fevers.

Prof. Brainard, upon commencing the treatment of the fistula, remarked, that “it is a disease which very often exists for many years, either without the patient being aware of its presence, or without giving rise to sufficient inconvenience to induce him to apply for relief. The disease consists of a nar-



row passage existing at the side of the rectum, having in some cases, both an internal and an external opening; in others an internal, and in others still an external opening only.

The first is called complete; the second incomplete internal; and the last incomplete external fistula. Fistula results from abscesses which, forming in the vicinity of the anus, pass into this state from the movements of the sphincter ani, the contractions of which prevent it from healing. Or it may commence in the mucous ducts or follicles which are situated in the depression between the internal and external sphincters. It is not unfrequently found in connection with phthisis pulmonalis, or other diseases producing or following upon an impaired constitution. In these cases, the fistulous passage often extends around the rectum, or for a considerable distance upward at its side, passing sometimes within the tuberosity of the ischium, and having several openings externally.

The existence of a fistula of the anus may be suspected from pain and heat of the part, attended, usually, by a moisture produced by a slight but constant discharge of pus from its orifice. This orifice, when external, is often concealed by folds of skin, but its locality will generally be indicated by a small mucous tubercle.

For the purpose of examination, the patient should be placed in a convenient position, and a probe passed into the fistula. The finger, well oiled, should at this time be passed into the rectum, by which means the extent and direction of the fistula can be ascertained.

In the present instance, we find it to be very extensive; the external opening being in the perineum, and the internal one two inches from the anus.

The treatment of fistula of the anus divides itself into two different classes of means; the one having for its object the cure without, the second by means of, an operation. A recent fistula may often be cured by means of laxatives which prevent the injury of the parts by hardened fæces, whilst irritation is excited by nit. arg., sulph. cupri, or other escharotics. In old cases, and especially those which are extensive, this mode is entirely ineffectual, and it becomes necessary, either to resort to some operation or leave the case to nature.

There are instances in which the latter method is preferable. They are all those where the disease is connected with phthisis or other form of cachexia, when any operation would not only be useless, but might be injurious. The case before us partakes somewhat of this character, the patient being of broken constitution and but recently relieved, as you know, from a severe dropsical affection. Desirous of doing nothing which might give too severe a shock to the constitution, we shall, in this case not perform the usual operation for fistula, which consists in dividing, upon a director, all that portion of tissue situated between it and the rectum, and which, when they are widely separated, is of considerable severity.

Desirous, however, of doing something for his relief, we shall adopt a middle course, and use a means little known and used in the profession, but which, in a few cases, will be found to possess advantages over any other. The method of treatment alluded to is that by ligature. A piece of common saddler's silk should be passed, by means of an eyed probe, through the fistula, and brought out at the anus, so as to embrace all that portion of tissue usually divided in operating; the two extremities of the ligature are then to be joined together by means of a slip knot, so as to allow of its being easily drawn tight. This is to be immediately closed and repeated daily until the parts embraced are diminished gradually by ulceration, which requires several weeks, but which is attended by but little pain."

The operation of introducing the ligature was then performed as above described, and at the present time, March 6th, but a small portion of tissue remains to be divided. The cure might have been long since completed but for the want of care on the part of the patient in tightening the ligature. His general health is improved, and he will soon be capable of performing the ordinary labor of a man.

CASE. III—*Phymosis*.—J. B., aged, 14 years, from Kendall county Illinois, came to the Dispensary February 20th, 1847, for relief from a phymosis. On examination, the orifice of the prepuce was found to be so small as barely to admit the extremity of a common sized probe. The father of the boy stated that the malformation had existed from birth, but had been several times operated upon by simple division without



success. Prof. Brainard stated, that "before performing the operation required in this case, it was desirable to consider, for a short time, the causes producing the difficulty and the reasons requiring an operation. The prepuce in young persons is usually so contracted before the glans penis as to render its retraction difficult or impossible, and this state often continues during life without producing more than a simple inconvenience, and not by any means requiring an operation for its relief. At times, however, from the accumulation of vitiated secretion or the deposition of venereal virus beneath the prepuce, ulcerations take place difficult to heal and requiring incisions for their full exposure.

In other cases the occurrence of irritation at the orifice attended with slight ulceration produces such a contraction as to render the escape of the urine slow and difficult. Such is the case in the instance before us. The contraction in this case has, however, apparently been produced by the operations which were attempted for his relief; for, in each case, the contraction was carried to a greater extent than before. This tendency of the various canals to close under the influence of any irritation, which is often witnessed in the passages of the external ear, the mouth, the vagina, the urethra, etc., should fix the attention of surgeons, since, in many cases, by producing it artificially, we have a means of closing various preternatural openings, such as vesico-vaginal fistula, cleft palate, etc. But in order to obtain its full effect, we must imitate the action of disease itself, and keep up the irritation constantly for many months, and even years. There is scarcely any orifice or canal, either natural or otherwise, which can resist such continued applications without contracting and eventually closing altogether. It should also teach us that simply dilating, cauterizing or enlarging the orifice with the knife is a temporary means, followed, for the most part, by aggravation of the deformity. The operation which will be found most effectual in cases of phymosis consists either in dividing the prepuce freely from its extremity to the base of the glans penis and stitching together the external and internal coverings, or in simply circumcising the patient and stitching the two layers of integuments together all round at their points of division. In the present

case the latter operation is performed in consequence of the redundancy of the skin of the part."

The operation was then performed, and at the end of two weeks the patient returned home, cured, except at one or two small points not yet entirely cicatrized.

CASE IV—*Hydrocele of the Cord and Tunica Vaginalis in a child eighteen months old.*—This child was brought to the Dispensary February 26th, 1847, and presented a case remarkable for its size and the rapidity of its development. Prof. Brainard remarked that he should not go into a description of all the diagnostic signs of this affection, since the sensation of fluctuation was so distinct as to leave no doubt as to the fluid character of the contents of the tumor, and its translucency clearly reveals its serous nature. Neither should he describe all the different methods formerly employed for its cure. At present scarcely any other operation for hydrocele is thought of except injection; and the fluid used is generally a solution of iodine and hyd. potass., in various proportions, according to the degree of strength required. The peculiarity of this operation as practiced by Prof. Brainard consists in his using a very fine trochar, not larger than a middle sized knitting needle; and having allowed the fluid to flow out through the canala, injecting two fluidrachms of the above named solution, *which is all allowed to remain.* By this means sufficient inflammation to secure adhesion is produced without danger of suppuration.

The operation was, in this case, performed with success.

CASE V—*Partial Closure of the Mouth resulting from Mercurial Salivation.*—A. Duffy, aged 8 years, came to the Dispensary with this affection, of one year's standing. The cicatrix was on the left side, extending between the gums of the bi-cuspid teeth, narrow, and sufficiently long to allow of the mouth being opened half an inch. Prof. Brainard explained in full the causes and character of this kind of deformity, which he stated to be extremely common in the western States. For this description we refer our readers to the Am. Journ. of the Med. Sci., for August, 1843, where may be found, also, a figure of the instrument used by Dr. B. for separating the jaws in difficult cases. The present case being comparatively slight, the cicatrix was simply divided by



a horizontal cut, which allowed the jaws fully to open. When thus open, the anterior and posterior margins of the wound were approximated by stitches so that only a vertical line was left. This simple operation was invented for this case, and was fully successful; the boy enjoying, at the present time, full movement of the lower jaw.

*Chicago, March 9th, 1847.*

## PART II.—REVIEWS.

## ARTICLE V.

*Lectures on Natural and Difficult Parturition:* By EDWARD WILLIAM MURPHY, A. M., M. D., Professor of Midwifery, University College, London; Obstetric Physician, University College Hospital; and formerly Assistant Physician to the Dublin Lying-in Hospital. New York: S. S. and Wm. Wood. 1846. pp. 281. (From the Publishers.)

This is a neat little volume, and very convenient, both for the student and practitioner.

The author has wisely refrained from lengthy discussions in reference to the opinions of authors, and confined himself to facts. He has also studied brevity to good advantage, and, in this respect, this little work forms a striking contrast with the large amount of verbose medical literature which has been issuing from the press during the last few years.

The first lecture gives a concise description of the bones of the pelvis, with its measurements, and those of the foetal head; showing the beautiful mechanism in the adaptation of the diameters of the pelvis to those of the child's head.

The second lecture shows the different modes of measuring the pelvis, and the proportions of its natural form; variations from which constitute deformities. The causes of deformities of the pelvis are briefly discussed, with the use of the different instruments for detecting them; in reference to which he has correctly come to the conclusion, that, where the deformity is great, there is but little use for them, and where it is slight they are not sufficiently accurate to be depended upon. The lecture closes as follows:

“Besides these modes of measuring the pelvis, none of which can be depended upon, there are what have been called ‘digital measurements;’ or, in other words, the experienced accoucheur, from constant habit, when he passes the fingers or hand into the vagina, will form a very accurate estimate of the space in the pelvis. This is done in different ways: if one or two fingers are pressed towards the promontory of the sacrum, and if they at all approach it, it is



certain the promontory projects too much, otherwise this never could happen, as you will find, if you try the experiment on the dried pelvis, sometimes as much of the hand as the vagina will admit, is introduced; if the sacrum below the promontory and pubis are only touched, when the fingers are separated, it indicates sufficient space; if it be impossible to separate them, the contrary; and from the degree to which the fingers are compressed, the amount of disproportion is estimated. In some instances it was impossible to get more than two or even one finger within the pelvis."

The third lecture is on the "Mechanism of Parturition," and gives the classification of labors by different authors, and proceeds to the consideration of the manner in which the expulsive forces are produced and applied to the child.

His stages of labor are—1st. The dilatation of the os uteri; 2d. The expulsion of the child; and 3d. The separation and delivery of the placenta—which is the simplest and most natural division.

To show the necessity of not being hasty in rupturing the membranes, a point of great practical importance, we extract the following:

"We would now direct your attention to the means provided by nature to prevent the danger which might arise during this process [dilatation]. If the uterus exerted its full power upon the undilated os uteri, and if the unyielding head of the child were driven forcibly against it, the almost certain consequence would be, that the irritation would excite increased resistance, and ultimately terminate in inflammation of the mouth of the uterus. To obviate such an effect, nature interposes a *fluid medium* between the power and the resistance. The liquor amnii contained within the membranes, occupies the cavity of the uterus, and when its parietes contract upon it, the force exerted is, as we have explained, by this means accurately conveyed to the os uteri. When the latter dilates in the slightest degree, the fluid insinuates within the smallest opening, and expands it by a direct lateral pressure against its edges. The power of the uterus is thus made to act in the most favorable manner for distending its mouth.

Other advantages are also gained. The os uteri may dilate irregularly; but any attempt to overcome forcibly the undilated portion, is prevented when the force is conveyed through a fluid, which, while it readily yields to an undue resistance, still maintains an equable pressure upon the edges of the os uteri. Any irregularity in the action of the uterine

fibres, is also, to a certain extent, obviated, because these contractions, although irregular, being still conveyed by the fluid, are thus equally communicated to the os uteri. Further, so long as the tissue of the uterus intervenes, it is necessary to moderate the great power which the uterus is capable of exercising to dilate it: this is effected by the liquor amnii. The force conveyed by a fluid, you are aware, does not act in one direction only, but is distributed to every part of the surface to which the fluid is applied. The force, therefore, which is exerted to expand the mouth of the uterus, being communicated by a fluid, is not only directed against the os tincæ, but against the fundus and sides of that organ. The fundus, consequently, is opposed, not only by the os uteri, but by its own action reflected by the liquor amnii. Hence, so long as the fluid remains and the os uteri is undilated, the more powerful the action of the fundus, the greater is the resistance to it. The actual force employed is, therefore, very moderate, and any sudden or violent effort at distension is altogether obviated. You may observe this in the character of the pains during this stage. You will find, that, however severely they may commence, they last but a short time, and the effect on the os uteri is comparatively slight. If these short, though severe pains, be contrasted with the long continued and powerful pains which follow them when the liquor amnii is discharged, and the os uteri dilated, the difference in effect will be sufficiently obvious. As a means, therefore, of conveying the whole muscular power of the uterus upon the os uteri—of moderating and equalizing the force employed—of dilating the mouth of the uterus without exciting irritation—the liquor amnii is of essential importance.”

And he might have added, also, that, where not discharged until full dilitation, at the commencement of the second stage—that of the passage of the child—it renders essential service by lubricating the parts.

In reference to the difficulties often presenting in the first stage, the author observes:

“There are, however, many exceptions to this condition, varying with the degree to which the density of structure in the os uteri may be increased. The cellular tissue is never so loose and permeable in the first instance as it becomes afterwards; the mouth of the uterus is, therefore, more resisting in first than in subsequent pregnancies. Its structure retains more of its elasticity and firmness in young women pregnant for the first time, and consequently much more time is occupied in unfolding it; hence, the first stage of labor is



always longer in primiparæ than in those who have had many children. The os uteri is still more firm and resisting, if, in addition to a first pregnancy, the woman be advanced in years: the cervix and os uteri remain close, compact, and impermeable to the moment of parturition, which may be attributed to the increased firmness and diminished vascularity which age produces in the tissues generally. It then obtains the name of *rigid os uteri*. But there are different degrees of rigidity. Sometimes the structure is only *tough*. It gives way very slowly to the action of the uterus—nevertheless, it yields, although, as it were, reluctantly. In such cases, the os uteri may remain cool and free from tenderness, but opposes a firm resistance to the pressure of the finger, and always requires a long time before the dilatation is accomplished. There is, however, a certain class of cases in which this condition of the uterus is in the extreme. It might almost be called the *undilatable os uteri*. In this state its structure is unusually dense, and feels like cartilage. The edge of the os uteri is perfectly unyielding; when thick, it might be compared to the feel of Gimbernat's ligament. If very thin, it still offers the same resistance, and is to the touch like a hole made in parchment. Instances of this extreme rigidity are met with, not only in women who are advanced in life, but in those who have been, all their lives, accustomed to much bodily exertion, and exposed to the vicissitudes of laborious occupations. They are generally hard featured, coarse skinned, muscular women, of low stature, with thick short fingers, large wrists, and the bones generally prominent. It is in these cases you meet with that form of pelvis that I have described to you, as possessing many of the characters of the male pelvis. If you should, unfortunately, meet with a case of this kind, you must be prepared for difficulties from the commencement to the termination of labor, and, therefore, the consideration of it deserves your closest attention.

“All these varieties are included under the term “rigidity.” But besides, there are cases where the os uteri becomes *rigid although previously dilatable*. If the os uteri become inflamed, rigidity is the result of it; the os tincae grows hot and tender, is swollen, and becomes rigid. This alteration may arise from any irritation: premature rupture of the membranes for instance, by which the head is brought into direct contact with the undilated os uteri. It is also often induced, not by accidental causes, but by too much meddling, making too frequent examinations, attempting to dilate the os uteri artificially, etc. You cannot, therefore, be too cautious in this respect. Sometimes the head of the child presses so unequally upon the os uteri as to excite inflammation in it. The

head may not be directed exactly in the axis of the brim, but may rather rest upon the pubic portion of it, compressing the anterior lip of the uterus with every pain. While the remaining portion of the mouth of the uterus expands, this remains undilated, and forms a band in front of the head. When the membranes are ruptured, the pressure is so much increased that the anterior lip often inflames and grows quite rigid. Again, there are cases where the os uteri is driven down with the head into the pelvic cavity, and the whole circle of the os tinæ compressed so tightly against the pelvis as to produce inflammation; further dilatation is arrested, the os uteri is rigid, and if it remain long in this condition, slough may be the result; the whole os tinæ has been completely separated in this manner, and expelled with the head of the child."

The fourth lecture is upon the delivery of the child and the placenta—the fifth and sixth on the management of natural labor. The author directs the patient to be placed upon the left side, without mentioning any other position; an omission that might be expected from an English midwife; but, certainly, in those cases where the patient prefers it, and where there is no possible objection, it would be better to allow her to lie upon her back, as is preferred by some of the French authors.

The mode of preparing the patient by placing an oil-cloth or india-rubber next the bed, and cloths over it, may answer in large cities, but such directions will be of little use in the practice of most of our readers. Our author justly condemns the too common practice of patients remaining in their ordinary day apparel during delivery, on the ground that the change of clothes immediately after delivery is extremely hazardous on account of the liability to hæmorrhage, and the fatigue it must produce at a time when repose is most important.

The best plan of preparing the patient for delivery, in this country, is to allow her to clothe herself in her night clothes—those she proposes to wear after delivery—except the skirt, and draw them around the waist under the arms; a thick skirt may then be drawn on, which may be removed after delivery by slipping it down, and another may be put in its place, without requiring the patient to rise up. The night clothes can be drawn down, the bandage applied, and all made comfortable without fatigue or exposure to the patient.



The importance of a proper application of the bandage by the practitioner himself is clearly set forth, and one of an elastic character, as flannel, strongly recommended.

The seventh, eighth, ninth, and tenth lectures are devoted to the consideration of tedious and laborious labors.

The causes of tedious labors are considered under the following heads, viz: over distension of the uterus; extreme obliquity; gradual escape of liquor amnii; hysterical excitement; mental despondency; rigidity of os uteri from inflammation; toughness of os uteri; extreme rigidity, &c. We extract the following:

“5. *Mental Despondency*.—This source of difficulty is but briefly alluded to by the majority of obstetric authors. ‘Depressing passions of the mind’ are enumerated among the causes that retard labor, but are not dwelt upon in proportion to their importance. Fortunately, extreme cases of this kind are rarely met with; but instances might be quoted in which death was the result of such a cause. Cases are occasionally recorded of *unaccountable sudden death* after labor, which might, perhaps, be explained in this way, if all the circumstances of the case were understood; at least, the few instances that have fallen under my notice, seemed to admit of such an interpretation. In one case death would, undoubtedly, have taken place, had not the cause of depression been so obvious.

“A poor, emaciated woman entered the Dublin Lying-in Hospital, January, 1834, to be delivered of her eighth child. ‘Sharp misery had worn her to the bones;’ her pulse was feeble, the action of the uterus weak; notwithstanding this, she was delivered in an hour after admission; no hæmorrhage took place, and the placenta was separated without any difficulty, but her delivery was followed by the most alarming depression, which required the utmost care and attention to prevent her sinking altogether. Fortunately, strong beef tea and other nutritious diet, had been given to her from the time of admission, so that, with the addition of stimulants, and maintaining the temperature of the surface, she gradually recovered. This was a case where poverty and starvation produced their usual effects, and consequently one more under the control of treatment than those melancholy instances in which some cause, operating on the mind alone, produces some extreme nervous shock which we cannot relieve, because we cannot ‘minister unto a mind diseased.’ An instance of this kind occurred in the same institution the following year, January, 1835. A young woman was admitted in labor of her first child. She was evidently above

the class of persons usually admitted into that establishment. She seemed rather to shun observation; and there were no symptoms attending labor that required interference. It proceeded to its conclusion without any interruption, and terminated within ten hours from its commencement. The pains were feeble, but they were sufficiently strong for the purpose; the patient herself appeared also weak. She was delivered of a girl; and in about a half an hour after the placenta was expelled; but the pulse instantly sunk, syncope followed, and every means that could be used failed to prevent dissolution, although the discharge from the uterus was not increased, nor was there the least evidence of hæmorrhage, either externally or internally.

"An inspection was made twelve hours after death, and no cause could be discovered to explain an event so unlooked for; her history, however, may do so. She had been one of a respectable family, delicately reared, and educated in the strictest moral principles. She had been seduced, betrayed, and deserted; and, to complete her miseries, had to endure her hour of trial in the reception ward of the Dublin Lying-in Hospital. I shall only mention another instance of this kind, which will, perhaps, more distinctly illustrate the effect of an extreme nervous shock.

"In the beginning of the year 1834, a poor woman had walked some distance to the Dublin Lying-in Hospital, and when near it was suddenly seized with the pains of labor. She was delivered in the street, and with much difficulty brought into the house before the placenta separated. It came away, however, without difficulty; and the trifling hæmorrhage that followed was easily arrested. Her alarm was very great, but after some time it subsided; she slept, and nothing further occurred out of the usual course until the following day. On that morning a patient was brought into the same ward to be delivered who was extremely boisterous; she occupied the next bed to this woman, who lay so quietly that she seemed to pay little attention to the disturbance. In the course of the day, however, she complained of being overcome by her cries. She felt faint as if she were sinking; she had slight pains in the epigastrium, some sickness of stomach, pulse rather rapid, compressible, and soft. The woman who caused this was fortunately delivered, and thus all further annoyance was removed; but this patient did not recover from the effect that it seemed to produce on her. Stimulants were given to her, the extremities and surface kept warm, and the most perfect quietness observed in the ward—but all to no purpose. In the evening she was seized with syncope so alarming as to excite the greatest apprehension for her safety; the extremities became cold, her motions passed invo-



luntarily, and she died in about three hours. The uterus was perfectly contracted; there was not the slightest appearance of hæmorrhage from the vagina, nor any symptom present to explain the cause of dissolution.

"A very careful inspection was made after death: all the viscera of the abdomen were quite healthy, the uterus firm and contracted to its usual size. There were some old adhesions in the lungs; the heart was small, and contained very little blood on the right side; the vessels were all sound; and the only alteration in the brain was an increased quantity of serum in the ventricles and at the base. No other explanation, therefore, was left, but the probable one, that she sunk in consequence of extreme nervous shock. Her own sudden delivery produced a strong impression on her mind in the first instance. This was again excited and increased by the violence of the patient alluded to, and hence the effect. It is probable that she would have recovered from the first shock, had it not been again renewed by this accident.

"These instances will illustrate the influence of the mind on the constitution at this critical period; they are, fortunately, rare; but those cases where the same cause operates in retarding, and sometimes in suspending, the action of the uterus, are more frequently met with. The sympathy (to use a popular term) that exists between the brain and the uterus is matter of daily observation, the change of feelings and temper that frequently result from pregnancy, the hallucinations that occur after delivery, from the slightest temporary aberration to long continued mania, all prove the influence of the uterus on the mind. So, on the other hand, a disturbed mind suspends the action of the uterus, just in the same manner as it interferes with the healthy action of the digestive organs. As in the latter class of cases you find the appetite gone, the digestion imperfect, the liver disordered, and the bowels constipated, so in the former parturition may be greatly prolonged, and the patient recovered with difficulty from the effect of a labor that otherwise would have been happily concluded within the average period. Such cases may come under your notice; it is therefore necessary to recollect their characters."

Under the head of laborious labors are considered all those difficulties arising from a want of due proportion in the pelvis or child's head, malposition, tumors, exhaustion, inflammation, &c.

In reference to the use of ergot the author says:

\* \* \* "After a temporary rest has been thus produced, (by opium,) if the uterus still continues to act feebly,

ergot of rye may be given in an equally cautious manner, carefully attending to its influence on the pulse, and especially on the circulation of the fœtus. If, in either case, after giving this medicine, the rate of the pulsations be diminished, you must not persevere in its employment, otherwise the death of the child may be the result. It is also necessary to be careful to avoid the use of *secale cornutum*, if the delay in this stage arises from great disproportion between the head and the pelvis. It must be obvious to you, that, in a case like this, it would be very dangerous to use a means of exciting the action of the uterus, over which you can have no control. A preparation which exerts a specific influence on the uterus, which often causes the most violent action, and that not returning at intervals, as ordinary pains do, but which excites a *continuous* effort of the uterus to expel the child, is not the safest to employ when there is much resistance opposed to this action. The remedy, when cautiously administered, is useful, however, in those cases where the delay chiefly arises from want of power in the uterus, which may be exhausted if not thus artificially stimulated to action."

To this is appended a note giving the result of Drs. Beatty and Hardy's experiments with ergot, in which they come to the conclusion that a narcotic effect is produced upon the child in utero by the ergot given to the mother; but it has seemed to me that the deleterious effects upon the child oftener depend upon the constant and forcible contraction of the uterus where delivery is delayed after its administration.

Nothing is said of the use of ergot in preventing hæmorrhage — certainly one of its most important indications. Where the ergot has been given, I have never seen a case where troublesome hæmorrhage followed. I have, therefore, in my lectures, recommended that where there was a known tendency to flooding, or where there was reason to expect it to follow delivery, a dose of the ergot be given a few minutes before the expulsion of the child as a preventative. This practice has been extremely successful in my own hands.

In reference to the propriety of using the forceps in cases of impacted head, our author is certainly an alarmist. Many cases of retarded labor, where the head of the child is confined in the pelvis from slight disproportion or enfeebled action of the uterus, are allowed to remain unassisted



until the child is killed, and the mother's parts seriously injured so as to cause contusions, ulcerations, or sloughings to follow, when a resort is had to the forceps just in time for them to be made the scape goat to bear off the sins of this delay.

I have no disposition to make light of the dangers of using the forceps and other instruments—they certainly should be used with the greatest care—but what I do most positively object to is the practical results which follow such alarms in reference to instruments. Fear of their application causing delay until a large part of the benefit to be derived from them is lost. On this account I apprehend there is more of the mischief attributed to instruments dependent than on their awkward application. The author says:

“We are not generally favored with a faithful history of cases that illustrate the mischievous effects produced by the forceps. On the contrary, while the post-partum accidents of a skillful operation are deeply concealed in the shadows of the back ground of the picture, the surprising, the almost miraculous, power of the instrument is put prominently forward, with all the vividness of the most glowing and high colored description. Thus the truth is concealed from you, and so would remain, until exposed by your own dear-bought experience, except that you find scattered through the works of men whose skill is acknowledged, ominous hints and anxious warning against the improper application of these instruments. Many evidences might be quoted to this effect: we shall direct your attention to a few of them. Your late respected professor, Dr. Davis, paid a great deal of attention to the subject of instrumental labors, and was disposed to advocate a much bolder use of the forceps than what I should recommend; nevertheless, he candidly admits, that, ‘of all the instruments used in the practice of midwifery, those of the present class [the forceps] are unquestionably *the most dangerous to the mother*, inasmuch as in all cases where the forceps are used, the maternal tissues are more or less liable to contusion. All the fangs and framework are made of tempered steel, and let them be ever so well covered and defended they will still retain a great degree of hardness, calculated to bruise and to fret the soft and living texture which might be interposed between their covered surfaces and the solid walls of the pelvis.’

The same impression of mischief leads Dr. F. Ramsbothom to warn the practitioner that ‘cautiously and tenderly must his iron instrument be used! We must recollect that no

sensation can be imparted to the the operator's hand of any injury that may be done to the woman; and we must remember that one injudicious thrust, one forcible attempt at introduction, one violent effort at extraction, may bruise, may lacerate, may destroy!' Dr. Blundell addresses his pupils thus—'When, however, you lay your hand upon the tractor or forceps, remember, that the accoucheur who is meddlesome may be guilty of occasioning laceration of the perinæum, rupture of the vagina, compression and death of the child, inflammation of the abdomen of the mother, and many other fatal consequences, *which I myself have had occasion to see*—a list of offences surely sufficient to alarm the prudent.'

"But let us come to more direct evidence. Riecke, in his report of the practice of the kingdom of Wurtemberg, gives the results of a very large number of cases, and amongst them those in which the attempt was made unsuccessfully to remove the impacted head by the forceps. He observes—'Almost always, perforation was preceded by attempts to apply the forceps, and to the great injury of the mothers, because perforations, not preceded by such attempts, presented much more favorable results. \* \* \* \* The trials at extractions with the forceps—which many accoucheurs continue to the extinction of the infant's life (although foreseeing the necessity for perforation)—exhaust the mother to that degree that she necessarily sinks under the effect of these violent efforts.' In allusion to similar inquiries, Dr. Collins remarks—'It is from being thoroughly convinced of these facts by long and extensive observation, that I consider the forceps quite inapplicable when the head becomes fixed in the pelvis, and the ear cannot be reached by the finger except by violence, in consequence of disproportion existing between the head and the pelvis. \* \* \* \* The results I have witnessed from such practice [delivery by the forceps] were most distressing: in some, the neck of the bladder or urethra either lacerated, or the injury by pressure from forceps so great as to produce sloughing and consequent incontinence of urine; in others, the recto-vaginal septum destroyed, either of which renders the sufferer miserable for life; and in two cases where the mouth of the womb was imperfectly dilated, so much injury was inflicted on this part as to terminate in death.' Dr. R. Lee, in his lectures, quotes the paragraph at full length from which these passages are extracted and adds—'The accuracy of these remarks is fully confirmed by all the forceps cases which have come under my observation, which exceed sixty in number.' It would occupy too much time to accumulate further testimony to the same effect. I trust sufficient has been laid before you to authorize the conclusions at which I have arrived, and which are now



submitted to you—viz.: that when the head is impacted in the pelvic cavity, it cannot be delivered by the forceps without such injury to the passages as might endanger the mother's life; that the probability of preserving the child's life is not sufficiently certain to justify an attempt which might be so hazardous; that in the great majority of these cases the death of the child takes place naturally, and it may be removed before symptoms dangerous to the mother present themselves; and, lastly, that if it should happen that the reverse occurs, and danger to the mother—whether from exhaustion or extending inflammation—is indicated before the death of the child, that then perforation is called for, rather than render the risk to the mother a certainty, by the dangers that result from a forcible extraction by the forceps."

Lecture eleventh treats of the use of instruments having in view the preservation of the lives of both mother and child. These instruments are the vectis and forceps. Lecture twelfth is a continuation of the subject of the application of instruments, which is clearly discussed, and the lecture closed by the following judicious remarks on a kindred subject:

"*The induction of premature labor* is one of the greatest improvements in modern practice, because, by its means, the leading principle of obstetric operations may be carried out, and both mother and child preserved, in cases in which otherwise we could hardly hope for such a result. We shall not occupy your time with by-gone discussions on the propriety of prematurely forcing labor; it is sufficient to say, that its propriety—nay, its necessity—is admitted in the cases we have described to you, and the only point to be determined, is the case in which this operation is required. We must recollect that, independently of other objections, we have a strong reason for not inducing premature action of the uterus if it can be avoided. The uterus is not prepared for such a change: the cervix is still unfolding, the connection between the uterus and the placenta is more intimate, the circulation in the uterus less easily diverted into other channels; consequently, you expose your patient to greater risk than at the conclusion of pregnancy, and this you would not be justified in doing without a sufficiently powerful motive. The safety of the child is your justification; but you must have clear proof that it is in danger. You cannot trust to an examination of the pelvis only, because, unless distortion is great, it would be premature to say that the child cannot be delivered. The most certain evidence is the result of previous labors,

and in the diseased pelvis you have generally sufficient proof of its necessity. Perforation may have been performed in the previous labor; or, with every successive labor, the contraction of the pelvis may have increased so as to render the last more difficult than that which preceded it. If, in such a case, the previous delivery were completed with much difficulty by the forceps, you may fairly assume that the next will require perforation. Thus, you will generally have sufficient evidence to guide you in these cases; but remember the induction of labor is not suitable in first pregnancies.

Different modes of exciting the action of the uterus have been proposed:—1st. *By direct irritation*, as frictions over this organ, artificial dilatation of the os uteri with the fingers or by the introduction of a sponge tent;—2d. *By the specific action of ergot of rye*;—3d, and lastly, *By deranging the connection between the uterus and the ovum*, either by detaching the membranes from the side of the uterus, or puncturing the membranes and allowing the liquor amnii to escape. Of these means the last is the most certain, but, at the same time, one which it would be preferable to avoid if other means were efficient for the purpose, because the liquor amnii would ensure a more favorable dilatation of the uterus, and the child be more secure. Ergot of rye is unsafe, because of the child, the preservation of which is your only motive for interfering; therefore, artificial dilatation by a sponge tent may be first tried, and if it fail, the membranes may be ruptured with a stilette. The action of the uterus sometimes commences immediately, but it may not begin for twenty-four or forty-eight hours after the operation.”

Lecture thirteenth, the last of the series, is devoted to an account of the instruments employed in obstetric practice.

The subjects discussed are illustrated throughout with appropriate cuts.

The volume closes with eighty-four aphorisms that may be useful to the practitioner as setting forth, in a few words, the great principles of the science of obstetrics. We heartily recommend this as one of the least exceptionable works on the subject extant—and in view of its brevity, being such that the busiest practitioner may find time to read it. E.



## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE VI.

*Eighth Annual Report of the Directors and Superintendent of the Ohio Lunatic Asylum, to the forty-fifth General Assembly for the year 1846.*

*Report of the Pennsylvania Hospital for the Insane, for the year 1846.* By THOMAS S. KIRKBRIDE, M. D., Physician to the Institution. Philad. 1847.

*Twenty-ninth Annual Report on the state of the Asylum for the Relief of Persons deprived of the use of their Reason: to which is added an Account of the Asylum.* Published by direction of the Contributors. Third month, 1846.

*Fourteenth Annual Report of the Trustees of the State Lunatic Hospital, at Worcester, (Mass.,) Dec., 1846.*

*Memorial of Miss D. L. Dix to the General Assembly of the State of Illinois, praying the establishment of a State Hospital for the Insane,* January 11th, 1847.

These documents evince an increasing interest in reference to the insane, alike gratifying to every philanthropist, and honorable to the age in which we live.

Success in the cure of patients seems abundantly to crown the operations of all these institutions.

From the first we make the following extract, which, as we have reason to know, is but an expression of public sentiment in our noble sister State:

“The directors are much gratified in being able to announce that this great enterprize of benevolence may now be considered as completed. *The work is done.* Its conception and execution belong to the people of the state of Ohio. The work is emphatically theirs. In all the agitations and mutations of parties—in all the monetary revulsions which have occurred since it was commenced, its progress has never been for a moment improperly delayed. Not a solitary voice of dissension has been heard upon the subject. Every year has witnessed the spectacle of a whole people, through their representatives, coming up as one man to lay their united

offerings upon the shrine they had consecrated to the most touching and pitiable of human woes."

The subject is thus continued:

"It was remarked by the board, in their last annual report, that works like this, and the kindred charities which have grown up by its side are peculiarly the growth of christian times. Heathen lands have exhibited nothing similar. Antiquity had her wonders of science and of art—her Colussus—her pyramids—her triumphal arches—her amphitheatres and temples—which surpassed the proudest work of modern times—but in her palmiest days she had no Asylum for the insane—no educational institutions for the dumb and blind. The sepulchres of her history contain no trace of such a conception. Christianity was indispensable to their production. Between them and it, is the inseparable relation of cause and effect. How benign, and how wide spread and deep-rooted must be the influences which have produced such results!

"The subject suggests some further remarks, no less just and striking. Our own country is taking the lead in the establishment and promotion of these charities. The capability of man for self-government is a problem long since solved by our history. The diffusion of knowledge, the development of mind, and the highest prosperity are shown to be the fruits of free government. Its enemies still insisted that it must necessarily prove unfavorable to the progress of religion and benevolence. The rise and growth of these beautiful charities among us, are evidences upon that subject of the greatest weight. They prove that self-governed man is capable of the deepest sympathy for the afflictions of his brother man, and of the highest efforts to relieve them. He permits neither the sordid spirit of gain, nor any other selfish purpose, in his public councils or his individual action, to obliterate the better feelings of his nature. He seeks out the most helpless of the children of sorrow, and makes them the object of his care and bounty. The entire community recognizes it as a great and solemn public duty to provide for them and provision is made accordingly. Young as we are, no country is in advance of us in this work. This is a triumphant reply to the imputation alluded to."

The institution is calculated to accommodate three hundred and fifty patients. It had under care, at the date of the report, two hundred and eighty-three, and the number was rapidly increasing as apartments were fitted up for their reception. During the eight years of its successful operation,



it has, at almost all times, been full to crowding with patients from within the limits of the State.

The expenses for the support of the institution, including over two thousand dollars for improvements, repairs, and furniture, payment of officers, attendants and hands for the year, was \$22,946 07. The average number of patients in the institution during this time was two hundred and forty-four—making the cost for each patient, covering all expenses, about \$94 00 per annum, or about \$1 80 per week.

The second of these is a report from one of the finest institutions in the country. It is a branch of the old Pennsylvania Hospital, in Pine street above Eighth, Philadelphia, which was incorporated in 1752, and which, notwithstanding a yearly expense of many thousand dollars upon free patients, has, by rise in the value of its property, and the donation of benevolent individuals, become so wealthy as, six years ago, to erect this noble branch on a farm of over one hundred acres, two miles west of the city, at an expense of near three hundred thousand dollars, and since, to keep it in successful operation. During the past year extensive additions have been made to the institution, providing room for many additional patients, which will soon be finished and ready for their reception.

The past has been its most prosperous year, both in reference to the number of patients applying for relief, and in the success of treatment.

The average number of patients is one hundred and seventy-three, and the number of those discharged cured is eighty-nine.

The third is from one of the oldest institutions of the country, having been opened for the reception of patients in the year 1817, and was at that time far in advance of any thing of the kind in this country. It is under the exclusive care and management of the Society of Friends, by whom it was founded. The average number of patients in the asylum during the past year is  $57\frac{1}{2}$ . There were received 26, and discharged or died, 34. Of those discharged there were 15 cured, 6 improved, 7 stationary, and 6 died.

We make the following extract from the account of the asylum by the attending physician, Dr. Evans:

\* \* \* "The real state of the houses for the reception and treatment of the insane, in Great Britain, was first disclosed to the public, by the report of a committee of the House of Commons, published in 1816. Credulity itself is staggered at the recital of the before unheard of cruelty practised and misery endured, within the walls of most of those institutions, many of which the public had been accustomed to regard with pride, as monuments of their liberality and benevolence. There were, however, a few honorable exceptions, and conspicuous among these was the Retreat near York, which was projected by the Society of Friends as early as 1792, the same year in which Pinel commenced his celebrated reform in the Bicêtre at Paris. The plan of that Institution originated with a few individuals in the Society, who, having accidentally become acquainted with the manner in which the insane were habitually treated, resolved to rescue such of their fellow professors as suffered under that pre-eminent affliction, from the misery which surrounded them, and to place them in a situation where they would be subjected to a totally different course of management from that pursued in any of the existing establishments. Accordingly grounds were purchased, buildings erected, and in 1796 a considerable number of patients received, and a course of treatment carried, such as had never before been practised towards the insane, and which gave a rational ground to hope that their cure would be effected, or, at all events, their comfort and welfare secured. The Retreat was soon resorted to by others than Friends, and a short time the success obtained there demonstrated, beyond contradiction, the superior efficacy, both in respect of cure and security, of a mild and humane system of treatment in all cases of mental disorder. To the philanthropic members of that religious society who founded and conducted the Retreat, belongs (together with Pinel, who made some reformation in the horrible abuses of one of the Paris hospitals,) the credit, whatever it may be, of changing the course of treatment long pursued towards those deprived of the use of their reason, and restoring to them that sympathetic kindness and control which their affliction peculiarly demands. The example thus set was slow in extending its influence, as is evident from the state of the institutions throughout Great Britain, when the investigation before alluded to took place. That it had, however, a decided effect in awakening the public mind to the importance of a reformation in the insane hospitals, is shown by several parts of the evidence given before the committee



of the House of Commons. Dr. Weir, Inspector of Naval Hospitals states, in his testimony, that 'the object of almost every insane institution, whether of a public or private description had been the *security* of those pitiable objects; comfort, medical and moral treatment being in a great measure overlooked; happily, however, for that class of society, the Quaker's Retreat at York, has at last convinced the world how much may be done towards the amelioration of their condition.' "

The fourth is also from one of the veteran institutions of this country. It is a State establishment, but has received one or two large legacies from private individuals.

The original plan and building was designed for the accommodation of one hundred and twenty patients, to which, during the fourteen years that have elapsed since it went into operation, have been added several additional wings, with detached buildings, so that, during the past year the average number of patients has been three hundred and fifty-nine, and the number who have enjoyed its benefits during the same period is six hundred and thirty-seven.

The per cent. of recoveries on all recent cases is seventy-nine; on old cases, that is on cases of more than one year's standing, it is twenty-eight; and on all cases, fifty-seven.

The following are notes taken of the post mortem examination of the remarkable and melancholy case of a girl who was, for a long time, deprived of almost all of her external senses, an interesting account of which was extracted from the thirteenth annual report of this institution, and published on page 68, Vol. I, No. 1, new series, of this Journal:

" External appearance small, emaciated, pale.

" Dura mater not unusually adherent, nor were glandulae pachionii.

" Brain unusually firm; red points in section not more than usual; no unusual congestion; no unusual serum in arachnoid; perhaps one ounce of serum in the ventricles, and more at the base of the brain. On being removed from the cranium and turned over, the origin of the olfactory and the whole of the optic nerves were partly concealed by a considerable amount of false membrane, not recent; the nerves themselves were not softened and no pus or lymph was seen. Just at the forward part of the left middle lobe of the cerebrum, there was a greenish portion, two or three lines in superficial

extent, under the pia mater, looking at first like a tuberculous mass. On cutting through this, there was seen a mass of disease, presenting two appearances, viz.: first, a white portion bespotted with red, the red consisting of minute coagulæ; second, surrounding this first part, there was a golden or yellow part which was somewhat different. The centre portion was an inch, more or less in irregular diameter; the other portion one half an inch and regularly defined—the substance of the brain outside of this being firm; this lay just in front of the optic thalamus, but did not reach it. There was another mass of disease precisely similar, just below the posterior cornu of the right lateral ventricle. This latter did not quite reach to the base of the brain, and was considerably larger.

“The cerebellum was healthy; no disease was seen in the first two or three inches of the medulla oblongata.

“There was universal adhesion of the pleura—abundant scattered tubercles in the lungs, but no considerable agglomeration.

“The liver was large, pale, and supposed, to be fatty.

“The spleen was of the usual size and healthy, except a portion of an inch in diameter, which was distinct, palish, and friable, looking like a commencing metastatic abscess.

“The peritonum exhibited, every where, a fine bright red vascularity, but was not sticky, and presented no pus nor recent lymph.

“The omentum was very much thickened, being in some parts one or two inches thick, and quite red on the surface. It cut like scirrhus, but had no tubercles in it. There was a portion of it reaching into the right iliac region, which was very large and thick. The whole peritoneal surface of the intestines was studded with little drops, looking at first like recent lymph, but they could not be scraped off with a knife.

“The uterus, fallopian tubes, and ovaries were one mass of tubercular disease.”

The memorial of Miss Dix is a strong and urgent appeal to the legislature of Illinois in behalf of the insane of that State, which, we are happy to say, has not been made in vain. A bill was passed at its recent session, providing for a Hospital for the Insane, to be located at Jacksonville, and an especial tax was levied to raise the means for its erection.

After setting forth the necessity of the early treatment of insanity, by a host of authorities, and clearly showing that proper care and treatment can only be given in a hospital, she gives the following, with many other reasons, for complying with her petition:



"Of the urgent necessity for a hospital in Illinois, many are sensible who will read these pages; but there is, perhaps, a larger number to whose minds this claim presents itself under the view of no serious and positive obligation. A little inquiry will satisfy all who doubt, that this is either a great or an increasing evil. Illinois, according to the years since the country was settled, has a full proportion of insane, idiotic, and epileptic patients; not numerous enough merely to make it expedient to establish a hospital appropriate for their care and cure, for their own protection and the protection of others; but an uncompromising duty, from the voice of whose warnings and admonitions there is no mode of escape or evasion. Here humanity, receiving impulse from woe; selfish motives, claiming relief from anxiety and perplexity which never cease their distractions; and political economy, now more clamorous than ever, combine to hasten your efficient action upon this most solemn question. A few, the timid and superficial readers of their fellow men, but a few, will plead against appropriations for this work, on the unsound reasoning that their constituents will disapprove the measure; but I believe that it cannot be shown that the people at large ever manifest displeasure when their representatives appropriate their money to such objects as these. The citizens of Illinois, as other States, will not be found backward to make even some sacrifices, should these be required, when it is made evident that great sufferings exist within their borders, which they have the ability to mitigate, to control, and to limit.

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"Legislators of Illinois! upon your action on this question rest the peace and happiness, the usefulness and the lives of thousands of your fellow citizens;—nay, your own immediate interests herein are indissolubly intertwined. Who shall say that the familiar friend, the revered parent, the child of his affections, the beloved wife of his bosom, aye, even he himself may not claim the guardian care now solemnly as urgently solicited for others? Timely provide for maladies which cannot be wholly averted, but whose dire distresses may be mitigated and oftener healed.

"Rise not from the grave and often perplexing deliberations, which claim your legislation, till you have added to acts bearing merely on the political condition of your State, this work of peremptory obligation to humanity. Retire not from these Halls in which honor, integrity, and justice should rule till you have rendered this noble service to your fellow citizens; a service which shall be commemorated long after you shall have passed from the active stage of this life; a service, the holy recollections of which will assist to smooth your path through the 'dark valley;' and which the recording angel shall

inscribe in the book of life; 'For the memory of righteous acts shall never perish, neither in this world, nor in that which is to come!' " E.

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ARTICLE VII.

*The Diagnosis, Pathology, and Treatment of Diseases of the Chest:* By W. W. GERHARD, M. D., Lecturer on Clinical Medicine to the University of Pennsylvania; one of the Physicians to the Pennsylvania Hospital, etc. Second Edition, revised and enlarged. Philadelphia: Ed. Barrington & Geo. Haswell. 1846. pp. 288.

We are gratified to see a second edition of this deservedly popular work. The great importance of the class of diseases of which it treats, and the acknowledged ability and qualifications of its author, to do it ample justice, are good reasons why it should be in the library of every physician in the country. E.

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ARTICLE VIII.

*New Elements of Operative Surgery:* By ALF. A. S. M. VELPEAU. Accompanied with an Atlas of twenty-two plates. Translated by P. S. TOWNSEND, M. D., under the supervision of VALENTINE MOTT, M. D., etc., Vol. III. New York: Samuel S. & Wm. Wood, 1846. pp. 1162, 8 vo. (From the Publishers.)

We have, some time since, acknowledged the receipt of the second volume of this work with the promise of a further notice at a future time. The third, with the atlas, completing the work, is now before us, but we are still unable to do more than announce its appearance. Indeed, we must despair of being able to give an analysis of its contents. It is a work which embraces almost every known or imagined operation



of early or late times, and is indispensable as a work of reference to surgeons. While the additions of the American editor and translator embrace near 1500 pages, there is little of American surgery recorded there except the operations and report of cases by Dr. Mott.

A concise and well digested account of those parts of American surgery not contained in the original would have been much more valuable, and have occupied much less space than this accumulation of cases long since reported in the medical periodicals.

The plates of the Atlas embrace a great variety of instruments used in surgery, and are very well executed. D. B.

## PART IV.—SELECTIONS.

1. *Intermittent Fever—Its various forms—their treatment—abortive treatment of Remittent Fever.* By LEWIS D. FORD, M. D., Professor of the Institutes and Practice of Medicine in the Medical College of Georgia.

In continuation of this subject, commenced in No. 9, Vol. 1, of this Journal, the writer passes to that form commonly called Remittent fever.

If, as has been shown, it is the duty and interest of the practitioner of this climate to understand the lineaments and the pathology of malignant Intermittent fever; how much greater is the obligation upon him to know well the nature of Remittent—the former being of comparatively rare occurrence, whilst the latter may be called, emphatically, *the disease* of the Southern clime, constituting, as it does, the great mass of his cases, in the summer and autumn; and the result of his treatment of this fever determining his professional reputation.

The popular, almost universal name of Bilious fever it may be remarked, in passing, is highly objectionable—a name suggested by the marked disorders of the biliary secretions usually present, and by the pathology which regards it as dependent essentially, upon disease of the liver. Manifestly inappropriate to those cases not characterized by bilious disorder, it is, at best, an unfortunate name, because of the prejudice it creates in weak minds, that vitiated bile or a diseased state of the liver is its proximate cause. There is a peculiar propriety in the simple name of Remittent; this, describing the prominent characteristic feature of its every variety, and directing the mind to its *paroxysmal* character as the most essential feature, and giving a bias to enquiry into the nature of *paroxysmal* fevers, which directs to the knowledge of their nature.

Remittent fevers are characterized by an abatement of all their symptoms, at regular periods, generally once in twenty-four hours. This state of remission differs from an intermission, in that there are still present the febrile symptoms, but these diminished in violence. Individual cases, having this one feature of remittency in common, yet vary in their other symptoms, and in the organ or organs prominently affected; so that it is impossible to give a general description of remittent fever, which shall embrace all its varieties. It is therefore proposed to notice very generally the simplest form, and then its most difficult and dangerous varieties. The object of the writer being rather to develope



the pathology and treatment, it will not be necessary to give at large, the symptoms of simple remittent fever, and he therefore refers to the description of this to be found in systematic writers. The remark upon reading these descriptions is obvious, that they do but detail the symptoms of a paroxysm of Intermittent. Cullen, for example, embraces both forms under the one head of intermittents, alluding to the difference in the duration and degree of the intermission, as the only difference in their external characters. And, when described by others as different forms, yet it is but the re-production of the symptoms of the intermittent form. So that it may be considered a fact, that cases of *simple* remittent fever do occur in this climate, and this is generally in the early summer, and run their course, for many days, without any more prominent local affection than in intermittents, and often terminate in intermittents.

In referring to the graver forms of this fever up to the most malignant, it may be remarked, that all these are marked by some predominating affection of one or more vital organs, thus giving individuality to each. Thus, a common form is that, which may be called cephalitic remittent—in which there is violent pain in the head, and giddiness and intolerance of low degrees of light and sound; these symptoms alternating with high maniacal delirium, and accompanied with nausea and even vomiting—these latter symptoms, evidently, not dependent on the gastritic state, but having the same relation to the state of the brain as they have in idiopathic phrenitis, uncomplicated with gastritis—sympathetic gastric disturbances, capable of being calmed by antiemetics. If unrelieved, this form has a rapid course, and terminates with the symptoms of the last stage of fatal phrenitis.

A still more common form is that marked by head-ache and even delirium; but these are not as prominent and distressing symptoms as persevering nausea and violent uncontrollable vomiting with a red dry tongue, or furred yellow, or brown in the middle its edges and end only red and dry, with pain at the epigastrium increased by pressure, the bowels generally loose—constituting gastric remittent. Another is enteritic remittent, characterized by diarrhœa, which is notably increased at every succeeding paroxysm, and by even mild laxatives. Each one of these forms is pretty uniformly accompanied with disorders of the biliary secretions. But there are other forms, characterized chiefly by these bilious derangements; as by an excessive secretion of bile of a healthy color, a bright yellow color, poured out in such quantity as to regurgitate into the stomach and produce nausea and vomiting of this bile, and by bilious purging. Another variety in the biliary secretion is the entirely opposite of this, dependent on a more serious and more controlling disorder of the liver—a suspended secretion, ac-

accompanied with nausea and vomiting, but no bile discharged. With fulness, heaviness, and oppression of the epigastrium, sighing and general restlessness, a dull head-ache, dingy color of the skin, torpid bowels, which under the operation of saline and even drastic cathartics, do not discharge bilious stools.

Each one of these forms of remittent, may terminate in the typhoid state, with its characteristic symptoms of delirium, *subsultus tendinum*, extremely frequent pulse, diarrhœa and tympanitis.

The most fatal, or most rapidly fatal, is the algid form—characterized by imperfect reaction, unequal distribution of animal heat, cold extremities, and coldness of the general surface, and disordered sensation—a sense of heat at the surface as well as internal heat, with oppression of the chest and epigastrium, laborious respiration, jactitation, &c. This old form is now better known under the new name of *Congestive Fever*.

In reviewing the opinions of the profession on the pathology of remittents, it strikes the writer that too much importance has been given to the local congestions and inflammations, which form universally a part and parcel of the more serious cases of the disease—that too much reliance has been placed upon *post-mortem* appearances, as indicative of original and substantial disease—that the accidents and consequences of the disease have been mistaken for its original basis. Allowing for a moment that the evidences of gastro-intestinal inflammation were much more frequent than observation determines them to be—that they were found in every case; the conclusion is by no means warranted, that the disease is substantially a gastro-enteritis; it is as absurd as would be the conclusion that gastro intestinal inflammation formed no part of infantile remittent fever, merely because autopsic examination found the physical traces of disease in the cavity of the cranium, and the stomach and intestines sound. Whilst the information of pathological anatomy in this disease has a great value, yet the interpretation of the functional symptoms is more to be relied upon, in determining the location, at least, of its primitive irritation.

However the forms of remittent fever may be varied by the predominance of local symptoms, this character of periodicity marks them all—the disease is equally *paroxysmal*, when characterized by encephalitic symptoms as by gastric—*paroxysmal* in the thoracic varieties, and still *paroxysmal* in the simple form, which is characterized by no more prominent local disease than exists in the paroxysm of the simplest intermittent; and therefore this periodicity cannot be dependent upon any one of these local affections, it must depend upon some affection of some part of the system, as uniformly pre-



sent as this remittance. These local affections, then, how violent soever they may be—how controlling soever their influence upon the progress and final termination of remitting fever, may, with great propriety, be called complications or accidents, in reference to the fever itself. As to the relation of these complications to periodical fever, the writer referring to the cases adduced in the previous No. of this Journal, to prove the independence of the fever upon them, would remark further, that these accidents are manifestly not immaterial, but on the contrary, exert the most decided control over the regularity of the paroxysms, and are the immediate causes of their fatality. Thus, simple remittents are most regular in their paroxysms, and preserve this regularity throughout their whole course—the paroxysms more distinctly separated from each other; and, again, as the local affection becomes more fixed and more violent, in the same degree is the regularity of the paroxysms interrupted, the remissions are shorter and more obscure, until finally, with the complete establishment of the phlegmasial state upon the organ, the remissions cease and the case passes to the continued form. Thus it may be perceived that so far from phlegmasial disease determining the remittent fever, the very opposite is true—it destroys the type.

It is true of malignant remittent as of intermittent fevers, that they preserve their character of mild remittents, for some paroxysms, and gradually pass into the malignant; and of these the remark is universally true, that the local phlegmasia or congestion is increased by each succeeding paroxysm—that while the paroxysms are completed within its natural period of twenty-four hours, the local symptoms increase and abate with the increase and abatement of the paroxysm. To adopt the beautiful simile of Torti—"these wait upon the paroxysm, like the shadow upon the substance." So true is this, that in the vast majority of cases, when the paroxysm is broken up, the local affection subsides, without the necessity of addressing remedies to it—just what might reasonably be expected from observing its dependence upon the paroxysm.

That the local congestion or inflammation has no influence in determining the periodicity of remittent fever, will be manifest from the fact, that cases of mild remittent fever do sometimes run their whole course during seven or ten days, without any local phlegmasia or congestion greater than is found in simple intermittents; that such cases used to be treated in former years, among us at least, greatly to the comfort of patients, by small repeated doses of tartar emetic—a medicine by the common consent of the profession, proscribed wherever there is the remotest suspicion of the existence of gastritis; to which latter affection it has been so fashionable of late, to refer as the primitive irritation in remittent fever.

If the remittent fever be independent of local congestions or inflammations, the proper cases to select for illustrating its pathology are the *simplest cases*, those uncomplicated by any adventitious accidents.

The characters of simple remittent fever show it to be essentially an intermittent. The simultaneous occurrence of intermittents and remittents, in the same locality—nay, in different members of the same household, all under common circumstances of living and of exposure, proves satisfactorily their dependence upon one and the same common cause. The symptoms of the paroxysm of simple remittent and intermittent fevers are so similar, that the most penetrating observer cannot with confidence, determine, during the passage of a first paroxysm, whether the case will develop itself as an intermittent or remittent. Again, what more common than the change of type from intermittent to remittent and *vice versa*. And the appeal is fearlessly made to practitioners—Is it not common to meet with paroxysmal fever, beginning as intermittents, continuing as remittents, and ending fatally by the supervention of a paroxysm marked by symptoms of the utmost malignancy?

As in intermittents so in remittents, one of the most uniform symptoms is tenderness to pressure in some portion or portions of the spinal chord; and, further, the controlling influence of spinal disease over the symptoms manifested in the head and in the various abdominal viscera and over the muscular disorders, is illustrated by the efficacy of revulsives to the spinal column, in relieving all these distressing symptoms of the paroxysm.

The essential identity of intermittent and remittent fever is shown from another character of the latter form, alluded to by all practical writers, viz: its tendency to increase in the violence of its symptoms, on alternate days—at the tertian period. In fine, an inspection of the character of simple remittent fever shows no more difference between it and a quotidian intermittent, than between a quotidian and a tertian intermittent—a difference merely in the interval—that they are all essentially the same disease.

The conclusion to which the writer arrives as to the pathology of remittent fever in all its varieties, from the simplest to the most malignant, is, that remittent fever is an intermittent, rendered irregular by some complicating accident—that these complications, such as congestion and inflammation of one or more of the vital organs, so far from determining the remittency, tend to destroy it—that when produced by the paroxysm or by some peculiarity in the organs, they are increased by every succeeding paroxysm—that such is their dependence upon the paroxysm, that when this is checked these accidents



disappear, without requiring subsequent local treatment; and that the fundamental lesion upon which depends remittent fever, is in the nervous centres—the spinal marrow and the brain.

This view of the nature of remittent fever indicates the same grand object to be accomplished in the treatment of each of its varied forms, viz: to prevent the recurrence of the paroxysms and to moderate the violence of their symptoms when present. Thus, as intermittents, the treatment naturally is divided into two parts—the one appropriate to the remission, the other to the exacerbation. Now, if an enlightened experience will sustain the course of practice, which this pathology indicates, it will add confirmation to its truth. To this test at last, must every system of treatment admit itself; for the writer is ready to acknowledge, in the face of all that has been written against the empiric method, that the so-called rational method rests upon empiricism—that all we know of the operation of medicines and of remedial methods is the result only of experience.

1. *To prevent the return of the paroxysms.*—This distinct indication to be accomplished in the treatment of *remittent fever* of recent origin, contrasts strikingly with the objects set forth in almost every system of practice, with which the writer is acquainted. In the light of an experience of twelve years' faithful adherence to this object, it is lamentable to look back upon his own previous practice and that of the whole body of medical men, directed according to the teachings of the many popular "Practices of Physic," these founded manifestly upon the notion, that remittent fever once fairly commenced, cannot be arrested in its course—teaching that symptoms are to be palliated as they arise, the fever all the while being permitted to renew its paroxysms, with all their increasing and fatal concomitants. The writer, conscious that he will be doing a service to his brother practitioners, whose attention may not as yet have been directed to this important point, turns to some of the most popular and recent of these hand-books, to substantiate his declaration.

Look, e. g., at the objects proposed in the treatment, in Eberle's Practice—a work which has had so large a share in forming the opinions of medical men and shaping their practice: "In the treatment of this disease, there are three primary pathological conditions, according to which the general indications of remediate management must be directed, viz: 1. Functional derangement of the liver and alimentary canal. 2. Redundancy of morbid or vitiated secretions, and consequent irritation in the intestinal tube. 3. An irritated increased action of the heart and arteries. Hence, the principal indi-

cations in the treatment are : 1, to moderate the febrile reaction of the arterial system ; 2, to remove out of the alimentary canal, the vitiated and irritating secretions which may be lodged in it; 3, to restore the healthy functions of the alimentary canal; and 4, to obviate gastro-intestinal irritation.”—Among the methods of treatment not a word is said of an effort to arrest it.

In Dunglison's practice, the whole routine system of bleeding, purging, sweating, refrigerating, blistering, &c., is examined, but not a word as to the abortive treatment.

The writer turns to the treatment of remittent fever in a work published in 1847, by Dr. Clymer, whose aim has been, “to adapt it particularly to the necessities of the American Practitioner,” and reads—“The indications of treatment in remittent fever do not materially differ from those of continued fever. The points more particularly to be attended to, are the reduction of the general fever, obviating the effects of congestion and inflammatory action in the liver,” and other organs. In a note, we are informed, that the simple expectant plan, is the one, which has been generally of late recommended by the experienced? At the end of the note the indication is stated, in the Congestive fever, to prevent the recurrence of the paroxysm.

In Watson's Practice by Condie, remittent fever forms the subject of a note—in which it is announced that the most important question that presents itself in the treatment is the propriety of direct depletion by the lancet! And in Professor Dickson's Lectures, commended especially to the southern student and practitioner, there is the same minute remarks upon blood-letting, emetics, cathartics, calomel, cold, &c., &c., but not one word upon what must be regarded as the leading rational object—the checking of the paroxysm. Indeed upon this point, the necessary continuance of the disease when once formed is distinctly, though incidentally asserted. “Could we reasonably hope to prostrate the disease by a single blow, as is often done in the cure of phlegmasia, in pleurisy, &c., we might more implicitly trust to the lancet; *but the case is far otherwise.* Here the atmospheric and climatic predispositions are permanent, and the poisonous cause is still diffused around the patient, impressing the tissues with a continuous and UNAVOIDABLE agency. Success does not depend upon, nor can we hope or expect to attain it, by any single measure, however judicious and energetic.”

In Professor Chapman's Syllabus, by Kennedy, published in 1846, quinine, the specific remedy for jugulating remittent fever, is classed among the *adjuvants* of the old routine system of practice.

And in Bell and Stokes' Practice, even in the latest edition.



although the efficacy of the quinine practice is fully shown—the early unconditional use of quinine plainly set forth and triumphantly vindicated, yet in the treatment of the milder forms of remittent, this cardinal object of checking the recurrence of the paroxysm is not even hinted at. The writer, however, in passing, would pay the tribute of his high respect to the author of the articles on paroxysmal fevers, in this work; and express his sense of the obligations of the profession and of society to that author, for the general diffusion of modes of treatment, so admirably calculated to check the mortality of that hitherto fatal and always dangerous disease, congestive intermittent and remittent fever.

But where the propriety of confining the use of quinine to congestive remittent fever?—where the propriety of allowing simple remittent to run its course unchecked, whilst we hold in our hands a remedy so safe, so gentle, so certain as the sulphate of quinine? If it has the power of arresting the paroxysms of *malignant* remittent, in which, on the remittent fever is superadded the disturbing influences of extensive congestions and local inflammations, surely it must be able to control and arrest the *simple* form; and if so, there can be no propriety in allowing it to run its course unchecked; for who, that has lived where remittents are endemic, does not know, that a malignant paroxysm often supervenes, after many paroxysms of a mild and simple character; and that this paroxysm is dangerous in proportion to the previous duration of the fever: and, further, that simple remittent often lapses off into the typhoid state, to the imminent danger of the patient. Why run the hazard of these dangers by allowing its continuance?

*To prevent the recurrence of the paroxysms—to jugulate the disease.*—An analysis of the symptoms points to this then, as the prominent object, in every stage and every degree of the disease, as long, at least, as it preserves a paroxysmal character. Whilst it generally happens, that opportunity is afforded for the use of depletion, by bloodletting and other evacuations, during the paroxysm, yet the pathology which teaches that the remittent fever is the main affection, forbids us to allow the first remission to pass without attempting to accomplish this primary indication, if evacuations may not have been previously employed. This object may be accomplished by the use of sulphate of quinine—universally acknowledged to be the specific of intermittent fever, indicated also, as the specific of remittent, by the fundamental similarity of these two affections, and known to be so, by all who have thus used it. The interval between the paroxysms being shorter than in the intermittent form, the doses must necessarily be larger, in order to administer the requisite quantity, before the period of the next accession—from five to ten grains,

hourly, according to the length of the remission, to the extent of fifteen, twenty, or fifty grains. For in determining the quantity, the rule laid down in the treatment of malignant intermittents, serves for a guide here, viz: the quantity to be directly proportioned to the degree of danger apprehended from the coming paroxysm; thus, in malignant remittents, the largest, and in simple remittents, the smallest quantity.

The writer must be content with stating the result of his own experience, in this mode of treatment: that generally it checks the first paroxysm, almost universally the second, in the milder forms of the disease—that the average time of attendance upon such cases is three or four days—that, when the quinine fails to arrest a coming paroxysm, it mitigates its violence, shortens its duration; and although in some rare cases, the nervous symptoms produced by the remedy, are distressing to the patient during the paroxysm, these are soon relieved by the treatment appropriate to this state—that he has almost forgotten the features of a typhoid state of fever, so painfully familiar to him, previous to the last twelve years, when using the treatment then generally taught by authority and sanctioned by the profession.

Of this result the writer would say—those who have not fairly tried this mode of practice, have no right to question the justness of his conclusion—those who have, he confidently believes, will confirm it.

The writer does not undervalue the minute estimation of the circumstances, under which bloodletting, emetics, cathartics, mercurials and other remedies, should and should not be used, which is to be found in all the works on Practice; yet he declares his conviction, that the practitioner, holding steadily to this prominent indication, will find little need of availing himself of such instruction—that in the great majority of cases of simple Intermittent fever, by the use, during the paroxysm of bloodletting or not, and of the safest and surest emetic, water, (cold or warm, according to circumstances,) ingested into the stomach in such liberal quantities as to produce detergent vomiting, and this followed by a large injection to evacuate the bowels, and sinapisms to the vertebral column; the comfort of the patient is better secured, than by the administration of much physic, until the time arrives for the administration of the specific. If, after the subduction of the fever, there remains the evidence of disease in the liver, stomach or bowels, then this may be corrected by appropriate remedies, more readily, more safely and effectually than during the fever. The writer would insist upon this subsequent treatment of any remaining disease, as a necessary part of this abortive treatment.

How totally different the treatment here recommended for



incipient remittent fever, from that in recently published books of Practice, may appear by the following quotation from Professor Dickson's issued as late as 1845:—"During the remission which the management above detailed as requisite throughout the course and progress of the exacerbation is intended to hasten, to render more perfect, and to prolong, you must not allow your attention to your patient to slacken. Nay, you are now called upon, perhaps, for a still nicer and more assiduous exertion of diligence and skill, as the improved circumstances often afford a better opportunity of useful interference. Purgatives, if formerly rejected, will now probably remain upon the stomach and act kindly. Diaphoretics, too are less apt to nauseate, and may be exhibited in fuller doses, and procure a more free and diffused sweating. It is thus that you may hope to diminish the violence of the returning exacerbation, if you cannot altogether prevent it. To subtract as much as possible from its intensity, time the administration of your prescriptions so as to bring your patient most completely under their effect, freely operated on by your purgative, fully sweated by your sudorific, just at the period of its expected invasion. Let his windows then be darkened, his apartment kept fresh and cool by ventilation, and, if necessary by evaporation, sprinkling his floor with water, vinegar, or ardent spirits, and prevent any excitement by noise or by conversation with him. It is advisable farther, to meet a coming exacerbation with revulsives so applied as to counteract or diminish the local determination to important organs." The writer declares his greater confidence in the silent operation of fifteen or twenty grains of quinine, during the remission, in the absence of the physician, than in the strictest *surveillance* of a whole college faculty, armed with their Cathartics, Sudorifics and Mustard-plasters.

The value of this treatment, if it be as successful as herein declared, will be the more highly appreciated, if we consider, at one view, the various terminations of remittent fever of the milder kind—that the most favorable is in convalescence at the end of a week or ten days, after the patient shall have undergone, not only all the anguish of fever, but in addition thereto, the annoyance of emetics, cathartics, nauseous sudorific draughts, ptyalism, perhaps flaying with vesicatories, and moreover, agitated, day after day, patients and friends, by the uncertainty of the final result—that another termination is the unexpected development of a malignant paroxysm, almost uniformly fatal, certainly so, with the continuance of the treatment which permitted it—that another is, the gradual loss of the remitting character and the establishment of the typhoid state, not as uniformly fatal, but imminently dangerous. The abortive treatment secures an early convalescence, saving the

patient many days of vexation from fever and physic, with his strength but little impaired by depletion—it secures him from the hazard of a malignant paroxysm—from the doubtful issue of the typhoid state—doubtful under any of the many modes of treatment; and it will never impose upon the physician the fearful alternative of allowing the disease to run its course towards a doubtful issue, or to adopt a heroic course of mercury, which may end in salivation—an artificial disease, infinitely more annoying and of longer duration than the one it may have substituted—which may at last end in the loss of the patient's teeth, or of his lips, or of his life. Fearful indeed is the choice of the latter alternative; and far better, that the profession should lay under the reproach of impotency to save human life, than the more terrible one of sacrificing it.

When it is remembered that remittent fever is the endemic disease of Southern climates, the necessary exposure of the population in the summer and autumn, and the universality of its attacks, and the high rates of its mortality, under every mode of treatment hitherto adopted, and if the success of the abortive method has been here truly represented; then it may not be deemed extravagant to say—that its universal adoption throughout the Southern country, would confer blessings, within that sphere, proportionate to those conferred upon the world by the discovery of vaccination. It is gratifying to know, that it is fast winning its way to universal adoption; and the claim to the honor of diffusing the knowledge of this treatment, in this region of the Southern country, set forth in behalf of the Medical College of Georgia, by Professor Dugar, in his recent introductory lecture, is unhesitatingly endorsed by the writer. Here, the principle of this method was distinctly and publicly announced, as early as 1836, and ever since, its alumni, fully indoctrinated in the principles of this method, scattered through this and the neighboring States, have freely used the influence, which their unprecedented success in the treatment of bilious fever, has secured to them, in extending the same principles far and wide among their brethren of the faculty. It wins its way readily to the willing and candid enquirer, and *compels* the assent of the reluctant.

2. *To moderate the violence of the paroxysm.*—If the congestions and inflammations manifested with increased violence during the paroxysms are accidents, they do yet materially affect the issue of the case, and must command attention. But it is not the intention of the writer, at present, to enlarge upon this part of the treatment, the circumstances under which the various means of the antiphlogistic method may or may not be used, having been so judiciously defined in the works on



Practice. It was his intention to have added cases, to show how fairly the principles of pathology and practice, here advocated, are deduced from facts; but circumstances forbid the extension of this article.

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2. *Election of Medical Professors by Concours.*—Some two years ago we directed attention, by an article in this Journal, to the great good which would result to the profession of this country, and to Medical Colleges, by adopting the French mode of selecting Professors by *concours*—our views are yet unchanged.

We are right glad to see our friend of the Boston Med. and Surg. Journal, urging this mode of filling the vacant chair of anatomy in Harvard University. The following is what he says on the subject:

An important chair in the Medical College in Boston, is now well known to be vacant, by the resignation of Dr. Warren, who has sustained the professorship of Anatomy and Physiology, with distinguished ability and faithfulness, for an unusually long period. A query is running through the medical ranks in regard to his successor. Who is the man?—is the question. The opinion prevails generally, that he has been long ago selected, and that the influence of one or two will determine any medical appointment at the University, against any competitor who might be so presumptuous as to aspire to a place of such professional value. Whether this is true or not we cannot pretend to decide. It is certain, however, that the fortunate person who obtains the appointment, in the ordinary way in which elections are made at all the academical and medical institutions in New England, will have the reputation of having been elevated by strong friends behind the screen;—and however meritorious he may be as a man, he will be contrasted with many greatly his superiors, but who had no friends at court, and whose attainments, therefore, and peculiar qualifications for lecturing acceptably and instructively, without great pillars of family strength or wealth, must edge their way through life, and market their knowledge at retail, instead of shining in conspicuous departments of science, for which, both by nature and education, they are pre-eminently qualified. Were the corporation of the University to throw the doors wide open, and invite the whole profession to contend honorably for the prize by *concours*, what a glorious triumph it would be for intellect! How probable it is that the election would fall on some individual whose transcendent powers are either unknown or not

generally acknowledged by the public. And what an acquisition, too, would it be to a school, that should, in all coming ages, be the great and unrivalled medical focus of the Northern States.

It is quite unnecessary to particularize the character of the concours in France, or the effect the system has in developing the wonderful resources of the human mind. There is a prize to be gained worth contending for, when a professorship is there vacant. Men of comparative obscurity, having an opportunity to manifest their fitness for the duties, are permitted to exhibit their claims before a competent tribunal of judges, who are unswayed by those multiplied interests that are secretly made to bear upon a candidate's case, who silently glides into a fat postion, *a la New England*. There are said to be professorships in some medical schools in our country, where the endowment was made, provided the present incumbents were appointed to them. It was a regular piece of family economy, giving a relative a life annuity and college honors combined; in other words, without it, they would have been nothing in society, and even now, they are but make-weights or niche-fillers, like the baked monks of St. Bernard, for show in a faculty catalogue. Some persons ride through life on the shoulders of their friends, as Sindbad the Sailor did on the neck of the Old Man of the Sea, and look back upon the less fortunate of their fellow beings who are trudging on in the rear, indulging in feelings that are presumed to have agitated the benevolent Uncle Tobey, when he said to the fly, "go, poor devil, the world is large enough for thee and me." Being made, and making one's self, are very distinct affairs. History presents an unerring array of testimony to show that all the truly grand achievements in literature, science, and the arts, to say nothing of war, were accomplished by men who battled with adversity, and struggled against prejudices, but who at last triumphantly inscribed their own names on an imperishable tablet of universal fame.

No one conversant with the policy that usually actuates the managing spirits of institutions where profits or honor are at the disposal of a select board of gentlemen, supposes that the old scheme of suddenly making something out of nothing, will be readily abandoned. However disinterested some appointment may appear to the staring eyes of the spectator public, a large number of them, in the colleges of medicine in this country, have had their origin in an out-of-sight selfishness, difficult at all times to expose, but the trick is invariably detected in the sequel. We all have our favorites as well as relatives, and it is a weakness, perhaps, of humanity, that a sense of justice to the coming phalanxes of untaught students is lost sight of in the gratification of pushing a friend into a



spot where an indirect advantage will accrue to us from his position.

All the hard sayings, often unjust surmises, inuendoes, and expressions of regret, which a numerous, jealous, ambitious profession may be supposed to manifest when, in important appointments, merit is smothered in a napkin, and brass is gravely declared, by the *Senatus Academicus*, to be gold, would be entirely obviated by the simple generous establishment of the system of election by concours. If the American journals would heartily advocate this excellent test of the qualifications of candidates for professorships, in the medical schools of the United States, a change in the present mode might be ultimately effected; and then, but never till that important revolution transpires, will the great body of our medical teachers, lecturers and professors, vie in true greatness and brilliancy with those in the schools of France.

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3. Mr. Burnett, who keeps the matico, has kindly handed us the copy of a letter from Dr. Ruschenberger, dated at the U. S. Naval Hospital, New York, February 4th, 1846, which fully explains the history and medical properties of this article.—*Boston Med. and Surg. Journ.*

The *matico*, *yuba del solado*, *Piper Angustifolium*, which has within two or three years past, attracted the attention of the medical profession in England, was first brought to the United States by myself in 1834. It is said to have been accidentally discovered in 1824, at the battle of Ayacucho, by a soldier who was severely wounded, and in his anxiety to staunch the flow of blood, he pulled the leaves growing within his reach, and applied them to the wound, and the bleeding instantly ceased. He communicated the discovery to his wounded companions, who found its application equally efficacious. In Peru and Bolivia it became well known as a styptic, and has been externally used in the treatment of ulcers, but, so far as I can learn, it has not been employed internally up to this time.

I have used it internally in tincture, two ounces to the pint prepared by displacement; in powder, in doses of a drachm mixed in a wine glass of water, repeated every two hours, in uterine hæmorrhage; and in cold infusions (by displacement) half an ounce to the pint. It exerts a remarkably beneficial influence in menorrhagia, hæmatemesis, hæmoptycis, leucorrhœa, catarrhus vesicæ, and irritable bladder. It does not offend the stomach when given in powder or infusion (dose, a wine-glassfull); in tincture, in drachm doses, is not complained of, but when carried to a half ounce I have seen it produce nausea. I have seen it arrest bleeding instantly from small arteries, even while the blood flowed in jets, and after lint,

pressure, &c., had totally failed. To arrest the bleeding from leech-bites and the troublesome hæmorrhage which sometimes follows the extraction of a tooth, I think it will be found a very certain remedy. When used to arrest bleeding it should be in coarse powder and moistened with cold water. A strong tincture, four ounces to the pint, might possibly answer. The taste is not unpleasant.

This is a hasty outline of my experience, which is confirmed by that of Dr. Munro, of Dundee; Dr. Jeffreys, of Liverpool; and Dr. Hunter Lane, of Lancaster, as you may see by reference to the eighth part of Brathwaite's *Retrospect of Practical Medicine and Surgery* (1844, New York) page 37. You will find a notice of the article in the second American edition of Pereira's *Materia Medica*, edited by Professor Carson, vol. 2, page 222.

There is, I believe, no matico in the United States on sale at this time, although the Medical Journals contain occasional notices of its employment in England. I am fully persuaded that its virtues are such as to warrant me in recommending it to the profession for examination and trial. A part of what I have recently received I have forwarded to you.

There are two varieties of matico known; one is the matico hoja redonda (round leaved matico); and the other matico hoja puntiaguda (pointed leaved). The latter is considered the best, and is the kind sent to you.

Specimens of matico have been presented by me to several medical friends in Philadelphia.

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4. *Remarkable Case of Protracted Lactation.* Mrs. P., aged 39 years October 28th, 1846, never had a sick day since her marriage December 9th, 1826, except the usual sickness consequent on parturition. During this period she has given birth to eight children, all of whom are now living and in perfect health. The order of their births is as follows:—Sept. 5th, 1827, female; Sept. 5th, 1829, female, March 28th, 1832; female; April 1st, 1834, female; November 11th, 1837, female; April 3d, 1841, male; April 17th, 1844, male; November 3d, 1846, female. Mrs. P.'s only brother and sister lived to adult age and both died of *tubercular phthisis*. Both parents also died of the same disease. She was married young, and at the time considered a remarkably slender girl, being subject to cough upon the slightest exposure. She has been constantly nursing for a period of nearly twenty years—never weaning one child till the birth of another compelled her to, for the convenience of the infant. More than once, when *in labor*, I have seen her child of the last birth at the breast.

From a solitary case of this kind, I would not draw a single inference; but should some of your numerous correspondents



from the abundance of their experience, contribute for the Journal similar cases with a like favorable result, might we not infer, contrary to the generally received opinions of medical men, that protracted lactation, especially during pregnancy, possesses a prophylactic power, even when there exists a well-marked hereditary predisposition to pulmonary disease?—I. P. Smith, M. D., in *Ibid*,

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5. *Dislocation reduced by the aid of the ethereal inhalation, with other notices.*—James Murphy, a laboring man, aged 56, presented himself at the Hospital of the House of Correction on the 9th inst., having his left humerus dislocated into the axilla. The patient stated that the accident occurred five weeks ago, and that it was then seen by a physician of high respectability, who (no doubt by reason of the presence of inflammation and tumefaction) did not detect the true condition of the limb. The nature of the case was evident at the time of his coming here. This shoulder was less in size than the other, as was the whole arm for want of use. The elbow projected very considerably from the body, nor could the arm be rotated. The fingers were numb. The head of the bone could be distinctly felt in the axilla.

The operation for reduction was commenced by placing the patient on a bed. He then began to inspire through the ethereal inhaler. At this moment I observed that his knees were raised, and that there was much resistance of the muscles of the arm when slightly moved. I then, removing my boot, and sitting at his side, placed my heel in the axilla, and waited till the ether should have its expected effect. This occurred in about three minutes. His knees then relaxed and straightened, and as I gradually and firmly (with the assistance of a student) extended the arm and carried it a little further from the body, the head of the bone slipped into the socket. My own part in the operation was performed in less than two minutes. In a moment after the patient awoke from his lethargy, entirely unconscious of what had taken place.

On the afternoon of the same day I amputated the thumb of an old sailor while under the influence of the ethereal gas. He was totally unconscious of the operation, and said, when he awoke, that he had been dreaming that he was on board of a man of war in South America, walking the deck and chatting pleasantly with a shipmate.

A few weeks ago I amputated the leg of one man and the foot of another, while attempts were being made to render them insensible to pain by means of this same agent. But from want of docility in the patients, or from fear, or some other unaccountable influence, they failed to be affected by the gas to the desired extent. A very considerable mitigation

of pain was, however, experienced by them, according to their own language.—C. H. Stedman, M. D., in *Ibid.*

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6. *Case of Doubtful Sex.*—In March, 1843, I was requested to examine the case of Levi Suydam, aged 23 years, a native of Salisbury, Conn. At the exciting and warmly contested election of the spring of this year, almost everything bearing the semblance of the human form, of the male sex, was brought to the ballot-box. It was at this time, and under these circumstances, that the above mentioned person was presented, by the whigs of Salisbury, to the board of selectmen, to be made a freeman; he was challenged by the opposite party on the ground that he was more a female than a male, and that, in his physical organization, he partook of both sexes.

The following was the result of the first examination. On exposing his person, I found the mons veneris covered in the usual way, an imperforate penis, subject to erections, and about two inches and a half in length, with corresponding dimensions, the dorsum of the penis connected by cuticle and cellular membrane to the pubis, leaving about one inch and a half free, or not bound up, and towards the pubic region. This penis has a well formed glans with a depression in the usual place of the meatus urinarius, a well defined prepuce, with frænum, &c. The scrotum was not fully developed, inasmuch as it was but half the usual size, and not pendulous. In the scrotum, and on the right side of the penis, one testicle, of the size of a common filbert, with spermatic cord attached. In the perineum, at the root of the corpora cavernosa, an opening through which micturition was performed, this opening was large enough to admit the introduction of an ordinary sized catheter. Having found a penis, and one testicle, though imperfectly developed, and without further examination, I gave it as my opinion, that the person in question was a male citizen, and consequently entitled to all the privileges of a freeman.

On the morning of the first Monday in April (election day) I was informed that Dr. Ticknor would oppose Suydam's admission. Suydam came forward, Dr. Ticknor objected. I then stated to the meeting, that from an examination I had made I pronounced the person in question to be a male, and requested that Dr. Ticknor, might, with the consent of Suydam, retire into an adjoining room, and examine for himself. This was done, when Dr. Ticknor stated to the meeting that he was convinced that Suydam was a male. Suydam was admitted a freeman—voted—and the whig ticket carried by one majority!

A few days after the election, it was told me that Suydam



had regular catamenia. I then commenced further investigations, and learned from Mrs. Ayres, the sister of Suydam, that she had washed for him for years, and that he menstruated as regularly, but not as profusely, as most women. I next saw Suydam who very unwillingly confessed that such was the fact. I then requested him to meet Dr. Ticknor and myself the next day at my office; when the following additional particulars were elicited. Said Suydam is five feet two inches in height, light colored hair, fair complexion, with a beardless chin, and decidedly of a sanguineous temperament, narrow shoulders and broad hips, in short, every way of a feminine figure. Well developed mammæ with nipples and areola. On passing a female catheter into the opening through which micturition was performed, and through which he again stated he had a monthly, periodical, bloody discharge, instead of traversing a canal and drawing off urine, the catheter appeared to enter, immediately, a passage similar to the vagina, three or four inches in depth, and in which there was considerable play of the instrument. He stated that he had amorous desires, and that, at such times, his inclination was for the male sex; his feminine propensities, such as a fondness for gay colors; for pieces of calico, comparing them and placing them together, and an aversion for bodily labor, and an inability to perform the same, were remarked by many.

I further learned from an old lady who was present at the birth of Suydam, that, on the second day after his birth, Dr. Delamater, who attended as accoucheur, made, with an instrument, the opening through which he has since performed micturition.—Wm. James Barry, M. D., in *N. Y. Jour. of Med.*

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7. *Treatment of Sprains.*—The means which Dr. Poullain and the above authorities recommend, in lieu of leeching and cataplasms, is the immediate and continual application of cold by immersing the part in water. The cure is not only prompt but complete, inasmuch as there is no remaining engorgement to lay the foundation of future mischief, and the patient is enabled to employ the joint as actively as heretofore. This would be a great point gained even if the time consumed in the treatment were as great in the one plan as in the other, which it is not. Many cases of its success are related in the paper, and although, of course, in the great majority of instances, the ankle is the joint affected, sprains of other joints may be treated in just the same manner, except that in those, such as the knee, in which immersion may be difficult the application of wet compresses or irrigation may be substituted. The treatment, indeed, is not novel, for it was recommended by Boyer, and more recently by M. Begin.

“Of 90 patients whom I have treated by the aid of cold

and resolvents, 23 were cured in 6 days, 10 in 8 days, 22 in 11 days, 28 in from 11 to 15 days, 4 in from 20 to 25 days, and three at the end of a month. None of these persons have continued lame. Seven felt the effects of their accident for several months, without, however, being prevented from attending to their duties, and becoming quite cured. \* \*

\* \* \* If this mode of treatment has incurred blame at the hands of some surgeons, it is because it has not been sufficiently, promptly and freely employed, and it is therefore necessary to lay down some rules upon this point.

"The immersion should be resorted to as soon after the accident as possible. Recourse may be had to it also three, four, five, six, or even twelve hours after, but then its sedative effect is less prompt and the cure more tedious. The foot should remain at least *two hours* in the bath, and oftentimes much longer. It may sometimes be left in for entire days; and as a general rule the part should not be removed until it becomes completely cooled, the water being renewed as often as it becomes warm. This prolongation is easily obtained, for, after the first hour or so (during which the pain is sometimes almost insupportable), the immersion becomes bearable and the patient himself very desirable for its continuance. Iced water does not possess any superior efficacy to that of a temperature of  $37^{\circ}$  or  $39^{\circ}$ , provided this be equally maintained. As soon as the limb is removed from the bath it must be surrounded by a roller previously moistened with Goulard water or camphorated spirits, some of which must afterwards be applied to it from time to time. So effectually are congestion and swelling in this way diminished, that the bandage usually becomes loose within the twenty-four hours. It must be re-applied until all swelling and pain have disappeared, which is generally the case in from three to six days. The patient may now be allowed to walk, continuing, however, the use of a bandage for ten or twelve days.

"If fourteen, or even six or twelve hours, after the application of the wet bandage, pain still continues, or throbbing is felt by the patient, it must be taken off, and the limb again immersed in the water for a longer period than at first, even for a whole day, if requisite. The second immersion is sometimes unsuccessful, but fortunately it is very rarely required, as the first almost always suffices.

"If the sprain is several days old, the limb swollen and painful, while nothing has been done for it, a free local bleeding is a necessary preliminary, after which the bandage and cold lotions, or perhaps immersion itself, should at once be resorted to. These means are, however, now of far less service than when employed soon after the occurrence of the accident."



When the sprain has been badly treated, the joint may become the seat of a chronic enlargement, which is dissipated with difficulty, and only after the persevering use of compression. MM. Begin and Velpeau, indeed, employ this in the earliest stage of sprain as a powerful means of preventing inflammatory swelling. Dr. Poullain employs to this end a starched many-tailed bandage. Whatever means are used the case is tedious and may also require the aid of stimulating liniments, or of the douche as employed at the mineral springs and even this does not dissipate the enlargement.—*Rev. of Poullain, in the Brit. and F. Rev., in Ibid.*

8. *A New Instrument, Designed to Remedy the Imperfections of Speech Consequent upon congenital Fissure of the Soft Palate.*—By C. H. STEARNS, Esq., Surgeon.

As the readers of the *Lancet* are doubtless well acquainted with the means, both surgical and mechanical, which have hitherto been employed in cases of fissure of the palate, with the hope of improving the articulation, no review of the subject is here deemed necessary. A near relation of the writer of this communication had twice undergone the operation of staphyloraphy, and had also submitted himself several times to the hands of dentists, who professed to be able to close up the fissure by the adaptation of mechanical contrivances. These measures not being attended with the slightest benefit, the writer was induced himself to attempt something for his relief; and at length conceived the plan of an instrument, which from its proposed shape, position, and mobility, seemed likely to perform, to some extent at least, the functions of the natural *velum palati*, or soft palate. After a length of time, a piece of mechanism was produced, the application of which has been attended with satisfactory results. As it is probable that something of the kind may prove equally useful in other cases, a brief description of the affair is here offered.

A gold plate is first fitted to the roof of the mouth, in the manner practiced by dentists, which is to serve as the foundation or support of the mechanism intended to supply the want of the natural soft palate. To the upper and posterior margin of this plate, a flat spiral spring is attached, which, with the delicate and permanent elasticity peculiar to that kind of spring, admits of easy and constant vibrations backwards and forwards. To the other and posterior extremity of this spring, an artificial *flexible velum* is attached. This part of the instrument is constructed of Mr. Goodyear's preparation of caoutchouc, which, having the property to resist the action of both oils and acids, and at the same time sustaining a high degree of heat, has proved well adapted to the purpose. In attempting to

describe the artificial velum, we must, for the want of better terms at present, designate its principal parts as its *body and wings*. The body of the velum consists of the lamina of the caoutchouc, of a somewhat triangular form, and of the same size and shape as the vacant space is intended to occupy, that being the plane which would be indicated by imaginary lines connecting the opposite side or columns, and subtending the vertical angle of the fissure, at which point the velum is connected to the posterior extremity of the spiral spring. This lamina, constituting the body of the velum, is divided into three pieces which overlap each other. The wings projected obliquely forwards and outwards from each lateral margin of the body, and being made to conform to the shape of the columns or sides of the fissure, are seen to rest upon their inner and anterior surfaces, thus covering a portion of the soft parts which constitute the boundaries of the posterior fauces. In like manner, along each lateral margin of the body, there is (in mechanical phrase) a flange, projecting obliquely backward and outwards, and extending along down the posterior surface of the column, it terminates at the inferior angle of the velum. In this way the wing and the flange, on the same side, together form a groove fitted to receive the fleshy sides of the fissure. As the preparation of caoutchouc made use of presents a smooth surface, and yields readily to the slightest pressure, it is found to permit the contact and muscular motion of the surrounding soft parts, without causing any irritation. When, therefore, the sides of the fissure tend to approximate, as in deglutition, gargling the throat, or the utterance of some of the short vowel sounds, the three parts of the velum slide readily by each other, thus diminishing the extent of the exposed surface, and thereby imitating, to some extent, muscular contractile action, the force being derived from without, and not, of course, contained within the instrument. During the effort made in speaking, the surrounding muscular parts embrace and close upon the artificial velum, and press it back against the concave surface of the pharynx. The passage to the nares being therefore temporarily closed, the occlusion of sound is accomplished, and articulation made attainable, as the voice or sound, as it issues from the glottis, is thereby directed into the cavity of the fauces, and confined there long enough to receive the impressions made upon it by the tongue, lips, &c., in the formation of consonant letters.

The foregoing description may not be thought sufficiently specific; but some considerations preclude, at the present time, a more detailed account, which, to be intelligible, would require the aid of figures to illustrate the mechanism of the instrument. Even that might fail to satisfy one much inte-



rested in the subject, without an opportunity being offered of witnessing actual results derived from its application.

Though the instrument, after having been adapted in the way above described, was found materially to improve the speech, yet it was still considered defective, and not admitting of general application, until other important requisites had also been attained; for it was necessary to make it so yielding as not to irritate the sensitive and restless parts with which it must come in contact; so that it might at all times be retained in place without inconvenience, while eating, drinking, or during sleep. At the same time it was required to possess a degree of strength and firmness sufficient to sustain the force of any sudden shock, as in coughing, sneezing, or laughing, without the risk of being displaced, or in any way deranged. Durability of the substance composing the velum was also regarded as a point of the first importance to ensure its usefulness. The material made use of, as prepared by Mr. Goodyear, and managed according to his instructions, was found (after some practice in the manipulation necessary to bring it to the shape required), to resist the combined action of all the decomposing agents to which it must become subjected—viz.: motion, animal heat, the moisture and acids of the mouth, and the oils of the food. The means afterwards devised to keep it in order, freeing it from deposits, and thus preventing fetor, consist in the occasional use of some alkaline or aromatic preparation.

Any one who has had an opportunity of seeing many cases of congenital fissure of the palate, must have observed that they present considerable diversity in their anatomical features. To meet the peculiarities of each case, therefore, renders a corresponding modification of the metallic part of the instrument necessary; but the same method of constructing the artificial velum is applicable to all the varieties the writer has yet met with. In those cases where, as in persons with hare-lip, the fissure extends quite through the palatine and superior maxillary bones; the gold plate employed to sustain the velum will of course complete the defective part of the roof of the mouth.

We would now willingly add some account of the elocutionary practice and discipline resorted to, in order to obtain the full benefit of the instrument after its adaptation; but this may well be deferred to a future paper; more space having already been occupied than was at first intended—the purpose of this communication is indeed merely to announce what had thus far been accomplished.

2 *Vernon-place, Bloomsbury, June, 1845.*

NOTE.—We are happy to give publicity to Mr. Stearns' very ingenious invention, which we really believe calculated to relieve a most distressing infirmity.

We have seen the instrument applied in a well-marked case of congenital fissure of the velum palati, and found Mr. Stearns' promises fully substantiated. The articulation, previously very imperfect, at once became so natural that a person not acquainted with the patient would scarcely have imagined there was any defect whatever in the organs of speech.—ED. LANCET.—Lond. Lancet in *Amer Jour. of Dent. Sci.*

9. "*Arseniate of Quinia*.—This salt, first prepared by M. Bourières, has latterly been much used in France in the treatment of obstinate intermittents, and it is stated with much success; the chief obstacle to its more general employment being, according to Dr. Boudin, its extreme bitterness. It is readily prepared as follows: Dissolve half an ounce of sulphate of quinia in boiling water, and precipitate with ammonia; wash and dry the precipitate, and dissolve it with the aid of heat in three ounces of distilled water, containing two scruples of arsenious acid in solution; as the solution cools crystals of arseniate of quinia are deposited, which are to be dissolved in distilled water and recrystallized. It is a light, white salt, crystalized in brilliant, satiny needles. It is soluble in water, but more so in boiling than in cold water; it is also soluble in weak alcohol or in ether. The dose of it is from one to two grains in divided doses in the course of twenty-four hours. It is usually given in solution in distilled water, to which a little simple syrup may be added."—*Med. Exam.*, Oct., 1846.

10. *Address to the Graduates of Geneva Medical College, delivered January 26th, 1847.* By CHARLES ALFRED LEE, A. M., M. D., Professor of General pathology and Materia Medica in Geneva Medical College, etc., etc. Published by request of the Graduates.

This is an able address, and admirably suited to the occasion on which it was delivered. The valedictory address of a professor to his pupils, is almost necessarily monitory in its character. It is like the parting words of a parent to his son, pointing to his moral responsibilities and the great ethical rules by which he should be governed, and hence we rarely look for anything original, argumentative or ingenious; but it is something to express ordinary truths in language befitting the occasion, and calculated to win the attention, engage the affections, and persuade the judgment of the hearers. In these respects Dr. Lee has certainly been successful. We have room for only one or two extracts, which we select, not for any novelty in either the subjects or the sentiments, but for their importance and truthfulness.—*Ibid.*

"For some time after commencing your professional life, you will probably have some leisure on your hands, which



you can turn to profitable account by devoting it to study. Be not discouraged at the want of speedy success; your merits will eventually be known, and you will be rewarded accordingly. Justice will sooner or later be done you, and if you aim at eminence, and your efforts are well directed, you will attain it. Aim first at the establishment of character and reputation, with the full assurance that all desirable consequences will follow in their train. Turn not aside into any of the devious, albeit fashionable, paths of quackery so rife at the present day, by whatever specious name they may be known; sacrifice not your prospects and your good name by becoming the adherents of any partial and exclusive systems of medicine, for you may rest assured that they will all speedily disappear 'like the baseless fabric of a vision.' Be little not your honorable title of *PHYSICIAN* by prefixing to it any distinctive or diminutive epithet, be it Thomsonian, Homœopathic, or Hydropathic; for why should you do this? Is not he who stands upon the broad platform of catholic medicine more likely to be better armed for attacking disease, than he who occupies some insignificant redoubt, or petty loop-hole? Is there any want of freedom of opinion in our profession? Is not every one at liberty to construct his own articles of faith, drawing from every system whatever portion of truth it may contain, and shape his practice accordingly? Medicine is not, as many seem to suppose, a system of rules and doctrines handed down from teacher to pupil, admitting no change, a set of formulæ which you are bound to sustain, and from which it were heresy to swerve; but it is a progressive and constantly improving science, and every true and sincere votary of it will employ *all* the remedies, means, and resources within his reach, which accident or science has discovered, and observation and experiment verified. Away, then, with your partial systems which inevitably and professedly limit these means, and virtually nullify these resources. There is, indeed, gentlemen, a sad relaxation of principle at the present day, even in some who are regarded as among the most distinguished members of the profession, as manifested by their patronage and recommendation of patented and secret remedies; a course of conduct which is obviously incompatible with every sentiment of moral duty, and every principle of sound medical ethics. To keep from the world any discovery calculated to benefit mankind, as connected with the preservation of human health, or its restoration when lost, is such a derilection of duty, as to have met with the reprobation of the wise and good in every age of the world; and when this is done, as it generally is, for the sake of pecuniary emolument, the mind instinctively revolts at it, as an exhibition of selfishness and insensibility to human suf-

fering disgraceful to our natures, and derogatory to the character of those who belong to a profession, whose foundation is philanthropy, and whose crowning glory is benevolence. Give not, then, the slightest encouragement to remedies of this description, or their inventors; frown indignantly upon all attempts to render our glorious art a mercenary trade; disgrace not your *Alma Mater* and your own reputation, by countenancing, in the slightest degree, any unworthy proceedings of this kind, for, by so doing, you will justly forfeit all title to respect, and take rank with the Brandreths and Moffats of the day. The time is not distant when such a deep stain of disgrace must inevitably attach to patentees and proprietors of secret remedies in our profession, that neither the waters of Lethe will be able to obliterate nor the exhibition of 'Letheon' to bury in oblivion.

"Should any of you, then, hereafter discover a remedy calculated to benefit the world, publish it upon the house-top—imitate the goodness of Providence, and make it free as the air we breathe; for the consciousness of having done a good deed for humanity, the gratitude of an intelligent community, and the praises of a liberal profession, shall prove a most satisfactory reward.

"There is one duty which you owe to yourselves, to the sick who may be entrusted to your charge, and to society, by whose favor and confidence you are to be sustained, and this is—to shun the use of intoxicating drinks. I urge this upon you, Graduates of Geneva College, by every consideration of duty, of honor, of interest, and of philanthropy; I charge you as you value reputation, usefulness, success, and an approving conscience, ever adhere to the strictest rules of temperance. You owe this to those who have sustained you thus far, and furnished you with the means of obtaining a medical education; you owe it to your teachers who have labored to instruct you in the various branches of your art, and who feel an anxious desire for your prosperity; you owe it to the beloved *Alma Mater*, who sends you forth with pride this day, to carry health, and virtue, and gladness to those who come within your influence; you owe it to the profession whose bright escutcheon must never be soiled by your example; you owe it to society in whose ranks you are now to be enrolled, we trust among its most valued and respected members; you owe it to your hopes of usefulness here, and of happiness hereafter; you owe it to a reformed and enlightened public opinion; and, lastly, you owe it to your God. As you go forth, then, upon the serious errand of your lives—an errand requiring the keen eye, the cool head, the steady hand, the sound judgment—take this, my solemn and affectionate warning, along with you; carry it into the social circle and the



recesses of private life; take it into the hospitable mansions of the rich and the lowly dwellings of the poor; remember it in the hour of temptation and trial; heed it when the syren voice of pleasure beckons you along her flowery paths; so shall your lives flow equitably along; your cup of happiness be filled; your days crowned with usefulness, and your names with honor."

10. *Elongation of the Cervix Uteri*.—Prof. Gilman, amongst other interesting obstetrical cases, reported in the *Annalist*, gives the following:

*Case 1.*—I was requested by Dr. Barker to see a puerperal patient with him. Found Mrs. B., on the sixth day after her confinement, much exhausted and suffering from various nervous symptoms. She had effusion of serum into the peritoneum, and the legs were considerably enlarged by œdema: on examination per vaginam, the os uteri was found just within the labia. On passing the finger up into the posterior "*cul de sac*," it appeared to be from four to five inches long; and in feeling forward, the cervix was made out, elongated and cylindrical, about an inch and a half in diameter, rather larger above, though the difference was not great. The os was circular—the size of a shilling; the division into anterior and posterior lip was less distinct than I ever remembered to have found it in a recently delivered woman.

Dr. Barker informed me that the neck had once or twice protruded from the vulva, on the patient making some effort, straining or the like. Under treatment directed to her other symptoms, the patient recovered.

*Case 2.*—January 17. Saw in consultation with Dr. P. O'Reilly, Mrs. S., aged 27, married three years—never pregnant. She had suffered for some time with pain and tenderness in the hypogastlic region, which on examination, was believed to depend on irritation of the bladder. The particulars of this diagnosis, not being to the present purpose, I will not detail: suffice it to say, that on making a vaginal examination, the cervix uteri was found to project into the vagina about two inches. It was small and quite pointed, the os round and of a size scarcely to admit a common probe. Contrary to what might have been expected, this female, though she menstruated sparingly, suffered but little at her turns—certainly not to a degree that would make hers a case of dysmenorrhœa.

*Remarks.*—Elongation of the cervix uteri is rare—that of one lip is exceedingly so. In the hasty and imperfect reference to authorities which I have been able to make, I find no distinct notice of the disease as affecting one lip, except in an extract from Leroux, inserted in "*Boivin and Dugès on the Uterus*."

He speaks of it as occurring to some women during pregnancy, but disappearing on the approach of labor. Elongation of the whole cervix is more common. Segard reports a case, where the elongated cervix was mistaken for a polypus, a ligature applied, a fatal peritonitis and death were the results. Bichat (*Anat. Descrip.*, Vol. V., p. 282) speaks of having found the cervix elongated in several bodies examined post mortem.—He also details a case from Buisson, where the elongated cervix was mistaken for prolapsus, and a pessary used! A degree of the elongation noticed in the case of Mrs. S. is familiar to obstetricians, and, together with the pointed shape and the small size of the os, is noticed by Churchill and others as a frequent concomitant of dysmenorrhœa.

The opinion of Mackintosh, that a stricture or obliteration of the os was the frequent cause of dysmenorrhœa, and that removing the stricture would often cure the disease, has never made a strong impression on the minds of the profession. That the theory is well founded, and the practice in very many cases valuable, I have long believed; and I now repeat the opinion, elsewhere expressed, that in every case of dysmenorrhœa of great severity occurring in a married woman, especially if accompanied—as it so frequently is—by barrenness, a careful vaginal examination should be made, and if the os uteri be found small, (too small, for example, to admit a moderate sized female catheter,) careful attempts made to dilate it. This practice will, I know from an experience of now many years, be followed by a cure of the dysmenorrhœa, and, what is often to the patient more acceptable, a removal of the dreaded reproach of sterility.

The closing paragraph is worthy the particular attention of the profession. But what immorality would there be in this practice in cases of unmarried women, as intimated in a note?

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11.—*Clinique of the College of Physicians and Surgeons.*—  
Prof. PARKER.—Monday, February 1st, 1847.

*Case 2d.*—This man, 53 years old, has the aspect of one laboring under some constitutional difficulty; he has had a bad cough, which commenced about six years ago, in the fall. Now, Bronchitis usually comes on at this season, and remains till summer, but not unfrequently, continues in a chronic form for years. You will often meet with persons, who in the fall of every year will have an attack of this disease, and only recover when warm weather sets in. Such persons would be benefitted by going to a warm climate, where the temperature is agreeable; for it is not our excess of cold or warm weather



that produces these difficulties, but it is the sudden change from one to the other that is so extremely prejudicial. The warm weather does not last long enough to restore the parts to a condition capable of resisting the influence of cold. He says he has no appetite, and that a fit of coughing often causes him to vomit: here we see the sympathy between the Lungs and the Stomach; the introduction of food into the Stomach irritates it; this irritation is transmitted to the Lungs by the Par Vagum, and coughing induced, which by mechanically irritating the Stomach, causes an evacuation of its contents; you will observe the same thing in Pertussis.

He complains of rheumatism: this generally attacks persons who have abused their digestive organs by excesses—especially intemperate people; cider, wine, and liquors, are supposed to have a specific influence in developing the complaint; but, as he has been a temperate man, we must refer it to some other cause. In my own opinion, rheumatism is not a local, but a constitutional affection; and in the treatment of it, I have obtained the happiest results, from simply attending to the digestive organs; bleeding has been highly extolled, but I think it valuable only as an adjuvant. The pain in this case is chiefly in the joints, which indicates it to be the Arthritic, and serves to distinguish it from the Syphilitic form, which attacks the shafts of the bones.

On pressing his right side, he complains of pain, but neither percussion nor Auscultation indicates any trouble in his Lungs or Pleura; if there be any, it is rather on the left than the right; the pain, I suspect, is merely rheumatic, and in the Pectoral muscle. From all these symptoms, I am inclined to think it a case of Chronic Bronchitis, and would advise him to keep in his room, in which an even temperature should be maintained, and to attend to his digestive organs, by taking small doses of Cicuta and Blue Pill; and if his Stomach will bear it, the Balsam of Copaiva, which has a very beneficial influence on mucous membranes. If the irritation is very great, he would be benefitted by the Hydrocyanic Acid; these, with friction on the chest, will, I think be of much benefit to him.

*Case 3d.—Struma.*—A little girl, 10 years old, with an indurated gland on the neck, which was pronounced a true Scrofulous affection; it had inflamed, enlarged, softened, and finally become hard.

A poultice was ordered to be applied every night.

*Case 4th.—Struma.*—A man with Scrofulous disease in the bones of the little finger of the left hand; its removal was advised, consented to, and performed at the metacarpophalangeal articulation. The only difficulty to be encountered in this operation—the Professor remarked—was the lateral ligaments,

which, to one who has not the anatomy of the parts in his mind, would prove very troublesome.

*Case 5.*—*Nævus Maternus*—situated just above the left eye—which has been treated twice with hot needles, and thereby much reduced; was quite soft at first, but now hard; this hardness will soon disappear. The Professor remarked, that from its situation, there was danger in the introduction of needles, of wounding the Supra-Orbital nerve, which if done, would be likely to produce Amaurosis.

## 12. *The Patent Letheon—Jackson and Morton's Specification.*

[Communicated for the Boston Med. and Surg. Jour.]

It has been repeatedly said that Dr. Jackson is not concerned in the patent for the Letheon; that Mr. Morton alone has taken out the letters patent, and that whatever interest Dr. J. may have in it, arises out of some private contract between them. But it now appears that Dr. J. is really one of the proprietors—that the patent is issued in favor of Morton and Jackson conjointly.

The question has been asked, probably by every member of the profession, "what is patented?" I put the question, the other day, to a gentleman in Boston, who ought to know, and he replied, "The inhalation of the letheon by means of a valvular apparatus." This answer is far from satisfactory, for the same effect may be produced by inhalation of the vapor, without any valvular apparatus at all. If the "apparatus" be an essential part of the patent, the use of a different apparatus would enable any one to evade the penalty of the law. Have they patented the production of insensibility to pain by the inhalation of etheric vapor? No. A physician may administer the vapor, and produce insensibility to pain with or without the valvular apparatus, without infringing upon the patent. He may administer it for the headache, the heartache, or the bellyache, for tic-douloureux, asthma, or hysterics, and the patent will not reach him. Indeed, I am not quite sure that the patent will reach him if he uses the vapor in reducing dislocation or hernia, or in any operation in which "the knife or other instrument of operation of a surgeon" is not used.

What, then, is the precise thing patented? I answer, the combining with surgical operations, the application of ether, or the vapor thereof. This is the whole thing. The use of it in the practice of medicine, by inhalation, is not patented, nor in surgery even, except when connected with operations. They claim the right to use an old and well-known remedy to produce a given result, in the treatment of certain cases. The principle, then, is, that a member of the profession, if he discover that a certain effect may be produced by any remedy or agent



in common use, when used in a specified manner, in a certain case or class of cases, which had not (to his knowledge) been previously produced by said remedy or agent, he may secure to himself, by patent, the use of said article for producing this specified effect. For instance, should I discover that tinct. digitalis would cure Dixon Lewis, and others similarly affected, of excessive obesity, as it probably would, I might patent the use of tinct. dig. in such cases. If I discover that hydriod. potassæ, applied in a particular way, will cure dry scab or scurfy eruptions of the skin and scalp, may patent this particular use of it, in this class of cases, and require my brethren to pay me a stipulated sum, or a certain per cent. of the fees they may receive, for the right to use it in such cases. Should I discover that tinct. cayenne pepper and tinct. opii, combined in certain proportions, will cure the cholera, I may claim the sole right to use them in cases of cholera, however many persons may be dying around me for the want of them. If some *Yankee* were now in Bagdad, with a few gallons of these tinctures, with their use secured to him by a patent, would not he coin money?

The use of a known remedy to produce a particular effect in any given branch of professional practice, or in the treatment of a given class of cases, is the principle involved. This, so far as I can discover, from a careful examination of the specification, is the exact principle implied in it. As to the rectitude of this principle, professionally, socially, or morally, I say nothing. Each one can judge for himself. I believe the illustrations I have used above are correct and appropriate—that is, if surgery and the practice of medicine are parts of one and the same profession. If surgery is a mere mechanical operation, and is to take its place in the same category as other operations in mechanics, then the case is altered. Success in the mechanic arts depends, not only upon the skill with which their processes are accomplished, but often upon their processes themselves, and when a man invents a process by which the same result can be accomplished better than before, he is permitted by common consent, to enjoy the benefit of his invention for a limited time. If surgery puts in the same claim for its inventions, let it be divorced from the liberal professions—from the “humanities,” and hang out before its office doors, as in the days of Ben Jonson, a staff wound with a red tape, as a *sign* that “surgery is done here.” We all know the origin of the barber’s pole; and, Mr. Editor, there is a more close connection between surgery and barbering, than one would at first imagine. Many of the operations of *surgery* are *barbarous*, and the operations of *barbering* are often *surgical*. Indeed, many a poor wight would consider it no small alleviation of one of the miseries of human life

could he inhale the letheon before submitting to the most common operations of barbery. Mem.—Barbers may use the letheon without infringing upon the patent. With the above remarks, which have extended much farther than I intended, I send you a copy of the specification, which has recently come into my hands, thinking it will gratify the curiosity of many of your brethren.

Yours, S.

March, 1847.

*“The United States Patent Office.*—To all persons to whom these presents shall come, greeting: This is to certify, that the annexed is a true copy upon the records of this office, of the specification of Jackson and Morton’s Letters Patent, dated 12th Nov., 1846.

“In testimony whereof, I, Edmund Burke, Commissioner of Patents have caused the seal of the Patent Office to be hereunto affixed, this twelfth day of February, in the year of our Lord one thousand eight hundred and forty seven, and of the Independence of the United States the seventy-first.

“EDMUND BURKE.”

*The Schedule referred to in these Letters Patent, and making Part of the same.*

To all persons to whom these presents shall come: Be it known, that we, Charles T. Jackson and William T. G. Morton, of Boston, in the county of Suffolk, and State of Massachusetts, have invented or discovered a new and useful improvement in surgical operations, such as are usually attended with more or less pain and suffering, without any or very little pain to, or muscular action of persons who undergo the same; and we do hereby declare that the following is a full and exact description of said invention or discovery.

It is well known to chemists that when alcohol is submitted to distillation with certain acids, peculiar compounds termed ethers, are formed; each of which is usually distinguished by the name of the acid employed in its preparation. It has also been known that the vapors of some, if not all these chemical distillations, particularly those of sulphuric ether, when breathed or introduced into the lungs of an animal, have produced a peculiar effect on its nervous system; one which has been supposed to be analagous to what is usually termed intoxication. It has never (to our knowledge) been known until our discovery, that the inhalation of such vapors (particularly those of sulphuric ether) would produce insensibility to pain, or such a state of quiet of nervous action as to render a person or animal incapable to a great extent, if not entirely, of experiencing pain while under the action of the knife, or other instrument of operation of a surgeon, calculated to produce pain. This is our discovery, and the combining it with



or applying it to any operation of surgery, for the purpose of alleviating animal suffering, as well as of enabling a surgeon to conduct his operations with little or no struggling or muscular action of the patient, and with more certainty of success, constitutes our invention. The nervous quiet and insensibility to pain produced on a person is generally of short duration; the degree or extent of it, or time which it lasts, depends on the amount of ethereal vapor received into the system, and the constitutional character of the person to whom it is administered. Practice will soon acquaint an experienced surgeon with the amount of etheric vapor to be administered to persons for the accomplishment of the surgical operation or operations required in their respective cases. For the extraction of a tooth the individual may be thrown into the insensible state, generally speaking only a few minutes. For the removal of a tumor or the performance of the amputation of a limb, it is necessary to regulate the amount of vapor inhaled, to the time required to complete the operation. Various modes may be adopted for conveying the etheric vapor into the lungs. A very simple one is to saturate a piece of cloth or sponge with sulphuric ether, and place it to the nostrils or mouth so that the person may inhale the vapors. A more effective one is to take a glass or other proper vessel like a common bottle or flask. Place in it a sponge saturated with sulphuric ether. Let there be a hole made through the side of the vessel for the admission of atmospheric air (which *hole*) may or may not be provided with a valve opening downwards, or so as to allow air to pass into the vessel) a valve on the outside of the neck opening upwards, and another valve in the neck, and between that last mentioned and the body of the vessel or flask, which latter valve in the neck should open towards the mouth of the neck or bottle. The extremity of the neck is to be placed in the mouth of the patient, and his nostrils stopped or closed in such manner as to cause him to inhale air through the bottle, and to exhale it through the neck. The air thus breathed, by passing in contact with the sponge will be charged with the etheric vapors, which will be conveyed by it into the lungs of the patient. This will soon produce the state of insensibility or nervous quiet required.

In order to render the ether agreeable to various persons we often combine it with one or more essential oils, having pleasant perfumes. This may be effected by mixing the ether and essential oil, and washing the mixture in water. The impurities will subside, and the ether impregnated with the perfume will rise to the top of the water. We sometimes combine a narcotic preparation, such as opium or morphine with the ether. This may be done by many ways known to

chemists, by which a combination of narcotic vapors may be produced.

After a person has been put into the state of insensibility, as above described, a surgical operation may be performed upon him, without, so far as repeated experiments have proved, giving to him any apparent or real pain, or so little in comparison to that produced by the usual process of conducting surgical operations, as to be scarcely noticeable. There is very nearly if not entire absence of all pain. Immediately or soon after the operation is completed, a restoration of the patient to his usual feeling takes place, without, generally speaking, his having been sensible of the performance of the operation.

From the experiments we have made we are led to prefer the vapors of sulphuric ether to those of muriatic or other kinds of ether, but any such may be employed which will properly produce the state of insensibility without any injurious consequences to the patient.

We are fully aware that narcotics have been administered to patients undergoing surgical operations, and as we believe always by introducing them into the *stomach*. This we consider in no respect to embody our invention, as we operate through the *lungs and air passages*, and the effects produced upon the patient are entirely or so far different as to render the one very little, while the other is of immense utility. The consequences of the change are very considerable, as an immense amount of human or animal suffering can be prevented by the application of our discovery.

What we claim as our invention is the hereinbefore described means by which we are enabled to effect the above highly important improvement in surgical operations, viz.: by combining therewith the application of ether or the vapor thereof substantially as above specified.

In testimony whereof we have hereunto set our signature this twenty-seventh day of October, A. D. 1846.

Witnesses,  
R. H. Eddy,  
W. H. Leighton.

CHARLES T. JACKSON,  
WM. T. G. MORTON.

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13. *Chinese Physiology*.—"In medicine," says Mr. Williams, in his lecture on China, "the Chinese practice is better than their theory. The knowledge of some drugs enables them to effect occasional cures; but the Chinese have never dissected the human frame, and therefore know nothing of its anatomy. They assert that the food goes through the heart to the stomach—and further, that there are three avenues through the body!"



14. *Retention of the Urine after Labor.*

[Communicated for the Boston Med. and Surg. Jour.]

*Dr. Bedford—Dear Sir:* The case detailed below was intended solely for your inspection, but as I find it possessed of more than an ordinary share of interest, I am induced to offer it for publication, believing that it will serve to remind my junior brethren of *the necessity in all cases of "tracing effect to its proper cause,"* and that it will also admonish my seniors in the profession, that *they* too are fallible and liable to err.

June 28th, 1845, I was requested to visit Mrs. Samuel Mitchell, in an adjoining town. On my arrival at the house, I received the following history from her physician, Dr. H.\* Mrs. M. had given birth to a child ten days previous, the labor not being unusually long or severe. She appeared to be "doing well," until the morning of the 27th, when she remarked to her nurse that the room was becoming dark, and immediately she was seized with convulsions. From these, she would, at first partially recover, but was soon seized with another more severe than that which had preceded it; having had no less than nine distinct and well marked convulsions on that day. A messenger was despatched for Dr. H., soon after Mrs. M. was attacked, but he being absent, a neighboring physician, Dr. T., was called. He thought her to be suffering from puerperal convulsions, and immediately resorted to venesection. Dr. H. saw her in the evening, agreed with Dr. T. as to the diagnosis, practised venesection, and commenced giving tinct. stramonium, but what else, has passed from my mind. Dr. T. visited her the next morning, and finding the convulsions had returned with increased severity, he applied a blister to the back of the neck, and one upon the inner side of each leg. He also directed an enema of starch and laudanum, and a continuance of the treatment as prescribed by Dr. H. the evening previous. The abdomen being greatly distended, they applied fomentations. As the patient was evidently growing worse, farther counsel was desired; hence the occasion for sending for me. With this account, I proceeded to examine the patient. I found her suffering from coma, being wholly unconscious of what was going on around her; pulse 85, but hard; no unnatural degree of heat about the head; the condition of the pupils I do not recollect. There was incontinence of urine, and had been for a day previous. Upon examining the abdomen, *I found the bladder enormously distended, its fundus reaching the umbilicus.* I at once suggested the use of the catheter, and at the request of Dr. H. introduced it, and *drew from the patient more than one gallon of urine.* Of course the distension

\* Drs. T. and H. have had considerable experience in their profession; the first having been in business nearly twenty, and the latter ten years.

of the abdomen was quickly and completely removed. In order to guard against inflammation, I advised farther depletion, which was adopted. With my fingers upon the pulse, a vein was opened, and as soon as its hardness appeared to yield, the bleeding was stopped. A cathartic (one of calomel and jalap) was then given and after its operation, was followed with liberal doses of spts. nit. dulce. By the frequent introduction of the catheter, and by the continued use of the diuretic, alternating with the sup. tart. potass. in doses sufficient to operate as a cathartic, I had the satisfaction to hear that Mrs. M. had fully recovered.

There are some points in the history of the above case that are worth being remembered; and,

1st. The manner of attack; the patient being of a sudden seized with convulsions, while friends, nurse and physician supposed her convalescing.

2d, The *absence of all pain*, the patient having at no time given any intimation that she experienced the least uncomfortable sensation about the bladder; hence I incline to the opinion that the distension of the bladder commenced in the months of pregnancy. Chailly in his admirable treatise on midwifery, page 220, speaking of cases where there is a retention of urine, says, "Happy indeed if the error is soon discovered; for women, through an inconceivable ignorance of their medical attendants, have been known to succumb, with the most excruciating sufferings, and all owing to extreme distension of the bladder." But in the above case the patient complained of no pain, made no complaint, anticipated that she would soon be restored to the pleasures of society, when, suddenly, vision is rendered imperfect, reason is dethroned, and convulsions and coma attack the patient with great severity; yet all this caused by a retention of urine.

3d. Convulsions preceding and for a while accompanying coma. That the coma was caused by a partial suppression of the urine, the last produced by its retention, I think there can be no doubt. But what gave rise to the convulsions? Is it probable that there was a congestion of the brain? I think not. I am disposed to attribute it, like the coma, to the suppression of the urine; the blood thereby being rendered highly irritating, it is easy to see that as this was diffused throughout the brain and whole nervous system, disorder would be very likely to be induced.

I am not aware of any other case of retention or suppression of urine, that was followed by coma, where it was preceded by, and accompanied with, convulsions. If you have met with any similar instance in your own practice, or know of any upon record, please inform me.

In conclusion, permit me to say to you, likewise to your



associates in the University, that I am not unmindful of the numerous favors I have received from your and their hands. I call to mind, with feelings of the highest pleasure, the many days I have spent in listening to valuable precepts you all labored so arduously to inculcate. Let me assure you that my alma mater is not forgotten; that in my intercourse with society, I feel that "my interests are her interests," and with a "watchful eye" shall sacredly guard its reputation. That its prosperity may ever continue, is the fervent prayer of

Your obedient servant,

Colchester, Ct., March 29, 1847.

JAMES R. DOW.

15. *Medical Jubilee Dinner in Albany.*—On the completion, lately, of fifty years spent in the active practice of medicine, by Dr. William Bay, of Albany, the profession of that city complimented him with a public dinner. The occasion seems to have been an exceedingly agreeable opportunity for the manifestation of those pure and ennobling sentiments which men, devoted to the service of humanity, should exhibit towards each other, and especially towards such as have eminently distinguished themselves by long and laborious devotion to their arduous duties. Prof. T. Romeyn Beck presided, and heightened the festivities by a pleasant sketch of the life of their guest, in connection with historical memoranda of several celebrated members of the profession in New-York, who gave character while they lived, to the science of medicine, and whose names are associated with whatever is great and good, and worthy of imitation by their successors. We were delighted with the account of the doings of the physicians at Albany. In honoring gray hairs, as they did in the person of their excellent neighbor, friend and associate, the venerable Dr. Bay, they will themselves be honored by their medical brethren wherever the circumstances are made know.—*Ibid.*

16. *The Letheon administered in a Case of Labor.*—(To the editor of the Boston Medical and Surgical Journal.)—On the 7th inst. I administered the vapor of ether in a case of natural labor. The patient was in good health, and in labor of her third child. Five and a half hours having elapsed from the commencement of labor, her pains, which had been light, but regular, becoming severe, the vapor of ether was inhaled by the nose, and exhaled by the mouth. The patient had no difficulty in taking the vapor in this manner from the reservoir, without any valvular apparatus.

In the course of twenty minutes four pains had occurred without suffering, the vapor of ether being administered between each pain. Consciousness was unimpaired and labor not retarded. Inhalation was then suspended, that a compar-

ison might be made between the effective force of the throes with and without the vapor of ether. No material difference was detected, but the distress of the patient was great. Inhalation was resumed, but the progress of the labor was so rapid that time could not be found for sufficient inhalation to bring the system *perfectly* under its influence; still the sufferings of the last moments were greatly mitigated. From the commencement of the inhalation to the close of the labor, thirty minutes. Number of inhalations, five. No unpleasant symptoms occurred, and the result was highly satisfactory.

Yours, &c.

Boston, April 10th, 1847.

N. C. KEEP.

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17. *New Jersey State Lunatic Asylum*.—It is expected that this Institution will be completed the ensuing fall. It is beautifully situated a short distance from Trenton, and the building, which is of stone, is well arranged and well built. A medical superintendent has not as yet been appointed.

The completion of this Asylum and the Butler Hospital, *with all modern improvements*, should awaken the attention of the managers of other Institutions. They must not suppose they can be sustained solely by their past reputation;—progress and improvement in the care of the insane is as much demanded by the spirit of the age, as in other branches of business.—*Amer. Jour. of Insanity*.

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18. *Butler Hospital for the Insane, Providence, R. I.*—We understand that this Institution will probably be open for the reception of patients in October next. We shall be much surprised if it does not take immediate rank among the first in the country. Dr. Ray, is zealously engaged in completing it in the best manner. We purpose hereafter to notice more particularly the excellence of its arrangements, and the beauty of the surrounding scenery, etc.—*Ibid*.



## PART V.—EDITORIAL.

## ARTICLE I.

## CHICAGO HOSPITAL.

We have the pleasure of announcing to our readers that the public authorities have determined to establish a hospital at Chicago, and have already taken such steps as to put it in immediate operation. This measure, imperiously demanded by the public interest, on the score of economy, and that of the indigent on the ground of humanity, is no less so by the interests of medical science as a means of improvement. A moment's consideration will show us the advantages it will afford in this respect. A large proportion of all the inhabitants of the western states have, during the past summer, suffered under periodical fevers. Their effects, in form of dropsical effusions, enlarged spleen, chronic phlegmasia, and debility remain. The disease itself often occurring, even during the winter, and baffling any attempt to arrest it permanently and remove its sequelæ.

The universal decision of the public and of the profession is, that all known means of treating such affections are ineffectual, and that new researches on the subject are required. These can only be made advantageously in public institutions.

During the past winter researches made in the dispensary of this city, have shown that the decoction of the bark of wahoo possesses advantages over all other substances in the treatment of dropsical effusions following intermittent and remittent fevers. More recent investigations, pursued in the same institution, have shown also, that there are articles in the materia medica which possess a far more prompt and permanent influence on those agues of long standing than quinine, arsenical preparations, iron, or bitter tonics. These, when completed, will be made public. It was necessary that opportunity should be afforded for their continuance.

In the new hospital every care will be taken to observe and

record the cases, and direct the treatment so as to reap the utmost advantages which they are capable of affording.

The arrangements of the medical department of the hospital will be of the most liberal kind. It will be entrusted entirely at present to the care of Dr. Brainard, who will spare no pains to make it useful as a means of teaching as well as a benefit to the sick. The dispensary will be continued in connection with the hospital, and out doors patients will be visited at their dwellings.

Added to the means already afforded at Chicago, those we have described for clinical instruction place this city with the first in the Union in respect to the advantages afforded to medical students. Already have the anatomical students found facilities for making preparations, dissecting, preparing models of plaister, &c., not offered elsewhere.

But no system of medical education can be considered sufficient which does not embrace clinical instruction. It is for want of this that so many young men fail of gaining the confidence of the public, of treating disease successfully, of sustaining the character of scientific physicians. It is this lamentable ignorance which discredits the profession in the public mind. Thus we see so many M. D.s, and even professors, in practice, thrown into the shade by uriscopians, Thompsonians and others whom they affect to despise. It is owing to this want of practical knowledge that medical men become routinists, and administer calomel, ant. tart., quinine, and other powerful drugs indiscriminately, so that in every respect, excepting in name, they might be ranked with the quacks themselves. As anatomy and physiology form the basis, so does clinical medicine, with the accessory knowledge it requires or affords, constitute the superstructure of medical science. This may, indeed, be gained in private practice, but it can only be done by much trouble with a teacher and much danger to the public after the physician has commenced practice on his own responsibility. But a well instructed physician will be ready to meet disease successfully as soon as he enters upon the duties of his profession.

The establishment of a hospital at Chicago is particularly gratifying to us, and will be, we trust, to our subscribers, from the additional interest it will enable us to give to the pages of



this Journal. Reports of interesting cases, or the results of treatment in classes of disease will be furnished to our pages from time to time.

*Chicago, March 27th 1847.*

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ARTICLE XI.

LETHEON.

The use of the ethereal vapor, or Letheon, has been adopted more rapidly and has been more generally successful than any other important improvement or discovery in medicine of which we have any recollection. But a few months have elapsed since its application was first made public in Boston, and now it is in almost universal use in this country, and the European Journals are full of accounts of its application by our transatlantic brethren of the healing art. It has been used to prevent pain in almost all of the important and minor operations in surgery with entire success, and the experiment has been tried of giving it to prevent the pain of parturition. It is said to succeed admirably in this—relieving the pain or sufferings of the patient without interfering with the contractions of the uterus. In application to patients in labor it has mostly been made for the purpose of applying the forceps, though it has been used in a few cases of natural labor. In one there was produced great cerebral congestion, but as yet no other serious result has arisen from it. M. Du-bois, deservedly at the head of this department of medicine in France, thinks it will only be appropriately applied in extreme cases.

Its influence on insane patients has been tried at the Bicetre, by M. Moreau, but with decidedly unfavorable results.

This discovery, which is likely to form an epoch in the history of our profession is claimed, as might be expected, by numerous individuals, both in Europe and this country. But whatever may be the claims of others, it is certain that the attention of the profession and the world, was first successfully attracted to it by Dr. Jackson, of Boston. In some

brief remarks upon this subject, made by Dr. Jackson, at a meeting after the close of the recent session of the medical school in Boston, reported in the Boston Med. and Surg. Journal, he said:

“He was aware of the pretensions advanced by others, but he believed that they had not been countenanced by the scientific world. The Academy of Sciences, of France, had received this discovery, and acknowledge its value, and had recorded it as emanating from America. They had set aside at once, the claims of pretenders, and had acted justly and honorably.

“He had already given to the public an account of the original experiments which he had made, on the effects of ether vapor. He would only re-assert, as he can prove by the testimony of others, that he discovered that insensibility to pain was produced by inhalation of sulphuric ether vapor, and that he communicated the fact to one of his pupils in February, 1846, and requested him to try the experiment when he had a tooth extracted.

“In the latter part of September last, he communicated this discovery to a dentist of this city (Mr. W. T. G. Morton), and requested him to administer the ether to one of his patients, with the assurance that it would produce insensibility, and that the experiment would be free from danger, if his directions were followed. He regarded himself as responsible for the results of the first experiments, which were made at his suggestion and by his advice. He next requested that dentist to go to the Massachusetts General Hospital, and ask Dr. Warren’s permission to administer the ether vapor to a patient about to undergo a surgical operation.

“He regretted that any misunderstanding should have arisen concerning this discovery. He was willing to allow great enterprise and zeal in promoting its introduction, and improving his originally simple apparatus. He did not see any reason why each party should not be willing to rest content with what they had done.

It would certainly be unwarrantable for the miner, who carried Davy’s safety lamp into the fire damp of a mine, to dispute the claims of its original inventor; for he received that instrument already proved to be efficient, with the assurance that it would guide him in safety through the explosive gases of the mine.”



## ARTICLE III.

## ILLINOIS STATE HOSPITAL FOR THE INSANE.

The bill passed at the late session of the legislature incorporating this institution, appoints nine trustees, and empowers them to cause to be erected, upon a farm not to exceed three hundred acres, within four miles of Jacksonville, in Morgan county, suitable buildings and out houses for said institution, and draw upon the treasurer of state from time to time as may be needed in the prosecution of said work, for the funds for the insane, which are to be raised by an annual tax of two cents on each one hundred dollars valuation of property in the state. This, we are informed by the secretary of the board, will yield about twenty thousand dollars per annum.

The whole establishment is to provide for the accommodation of two hundred and fifty patients, and the necessary officers, attendants, and servants for its management. The amount of its cost is limited to sixty thousand dollars.

The trustees are to appoint a superintendant for a term of ten years, and fix his salary, which shall not be reduced during his term, who shall be a well educated physician. Section eighth defines his duties as follows: "The superintendent shall appoint and exercise entire control over all subordinate officers and assistants in this institution, and shall have entire direction of the duties of the same."

Pauper patients are to have the preference in admission, who are to be supported by the counties sending them.

The trustees have determined to commence operations in building the ensuing fall, and will, we understand, push the work onward, as humanity most assuredly demands, to a rapid completion.

We hope the trustees will adopt the plan, so generally recommended by those conversant with the subject, of placing a physician, well informed on the subject, in charge of the erection of the building, at least so far as adapting it to the purposes for which it was designed are concerned. It may, and no doubt would, save much expense in making alterations in future, and probably prevent inconveniences that would be irremediable.

## ARTICLE IV.

## RUSH MEDICAL COLLEGE.

At the recent commencement of this institution, the degree of Doctor of Medicine was conferred upon sixteen young gentlemen, who had undergone the necessary examination by the faculty, and complied with the requirements of the college.

The honorary degree was also conferred upon Dr. Samuel Grimes, of Delphi, Indiana.

We understand that a catalogue of students of the last, and the annual announcement for the ensuing session will soon appear.

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ARTICLE V.

## COLUMBUS MEDICAL COLLEGE, OHIO.

By an act of the recent session of the Ohio Legislature, the Willoughby Medical School was removed to Columbus.

The faculty has been re-organized and are now giving their first course of lectures. The faculty is as follows :

J. P. JUDKINS, M. D., Prof. of Anatomy and Physiology.

R. L. HOWARD, M. D., Prof. of Surgery.

REV. F. MERRICK, M. D., Prof. of Chemistry.

H. H. CHILDS, M. D., Prof. of Obstetrics and Diseases of Women and Children.

J. BUTTERFIELD, M. D., Prof. of Pathology and practice.

T. R. SPENCER, M. D., Prof. of Therapeutics and Mat. Med.

S. M. Smith, M. D., Prof. of Medical Jurisprudence and Insanity.

We are sorry to see the price of a full course of lectures placed so low as fifty-five dollars, being a little less than eight dollars for each ticket.

We had hoped that when the competition between this and the Cleveland school was measurably abated by its removal to Columbus, they would both have fixed their fees at, at least, ten dollars for each Professor's ticket, which is the price almost uniformly adopted by the northern medical colleges.



## ARTICLE VI.

## PHILADELPHIA COLLEGE OF MEDICINE.

This, the fifth medical School in the city of brotherly love, was chartered on the 14th of January last, by the Legislature of Pennsylvania, without a dissenting vote; and so early as the 15th of March, the first course of lectures was commenced. The faculty is as follows:

THOS. D. MITCHELL, M. D., Prof. of Theory and Practice, Midwifery and Med. Jurisprudence.

WM. H. ALLEN, A. M., Prof. of Chemistry.

J. R. BURDEN, M. D., Prof. of Mat. Med., and Therapeutics.

JAMES McCLINTOCK, M. D., Prof. of Anatomy, Physiology and Surgery.

S. GORE WHITE, M. D., Demonstrator of Anatomy.

## ARTICLE VII.

## STATISTICS OF MEDICAL SCHOOLS.

The following statistics of the number of students and graduates of medical colleges for the last session, have been gleaned from various sources of information.

	No. Stud'ts.	Graduates.
Jefferson Medical College, Phil'a. - - -	493	181
University of Pennsylvania, - - -	411	
Pennsylvania College, - - -	95	34
Franklin Medical College, - - -		5
University of the City of N. Y. - - -	410	123
College of Physicians and Surgeons, N. Y.		51
University of Louisville, - - -	349	75
Transylvania University, - - -	205	62
Medical College of Ohio, - - -	170	
Cleveland College, Ohio, - - -	216	
Willoughby Medical College, Ohio, - - -	101	38
Rush Medical College, Chicago, Ill., - - -	70	17
Castleton Med. College, Vt. - - -	131	42
Med. Dep't. of Yale College, Conn. - - -		28
Memphis Med. College, - - -	55	
Indiana Med. College, - - -		19

## ARTICLE VIII.

## RESIGNATION OF PROF. WARREN.

Prof. Warren who has, with great distinction to himself and the school, occupied the chair of anatomy and physiology in the medical department of Harvard University, at Boston, for forty years, has tendered his resignation and retired from its arduous duties.

On taking leave of the class he delivered an address said to abound in good feeling and sound advice. He has been elected Emeritus Professor of Anatomy and Surgery. And OLIVER W. HOLMES, M. D., is appointed his successor.

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## ARTICLE IX.

## BULLETIN OF MEDICAL SCIENCE.

This valuable exchange has been discontinued. Few men in this country are as able with the pen as Dr. Bell, and his retirement from the editorial chair is a loss to the profession.

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## ARTICLE X.

## MEDICAL BOOKS.

We noticed in our last number the enterprise of the Booksellers of Chicago, in bringing on large and well selected assortments of medical Books, and are happy to add that, as will be seen by reference to the cover, Messrs. Morrison & Talbott, of Indianapolis, are determined that the profession of their region shall be accommodated in like manner.



## ARTICLE XI.

## SINGULAR CASE OF TWINS.

Dr. J. Heath, of Janesville, W. T., in a letter, gives the following interesting case.

While in attendance upon a lady in labor with her first child, about a year ago, he observed a tumor at the umbilicus that attracted his attention. It had not been previously observed. He made pressure upon it, and as the child advanced it subsided. The child was born, and the placenta expelled from the uterus and removed from the vagina. On examining the after-birth it was found that the membranes were thickened, and formed a sack in which was found a foetus about eight inches long and natural, except the head was flattened between the parietal bones, so as almost to destroy the transverse diameter. There was no appearance of decomposition.

A case of twins in which monstrosity prevented the development of one child, which formed the tumor above referred to. The mother and child did well.

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ARTICLE XII.

## OBITUARY.

Dr. JOHN THOMPSON, late Professor of General Pathology in the University of Edinburg, died on the 11th of October last, aged 82 years. He was highly distinguished both as a teacher, writer, and practitioner.

Dr. BOSTOCK, a highly distinguished Physician, of London, died in August last, at the age of 73 years, of cholera.

Dr. LYMAN BRACKETT, of Rochester, Ind., a former contributor to our Journal, we learn by a letter from a friend, died on the 7th of April, inst. His disease was not reported.

Dr. N. WORCESTER, of Cincinnati, Ohio, highly distinguished as a teacher and writer, died recently of acute bronchitis.

Prof. TOMMASINI, of Italy, author of the contra-stimulant doctrine in medicine, died some time since.

Also, AUGUSTUS BERARD, Prof. of Clinical Surgery in Paris.

Also, December 17th, M. BROUISSONNET, Prof. of Clinical Medicine in the Faculty of Montpellier, aged 80 years.

Also, on 4th February, M. DUTROCHET, of Paris, the discoverer of the property of endosmosis and exosmosis in organic substances, in the 70th year of his age.



## NOTICE TO READERS AND CORRESPONDENTS.

Original communications from Drs. Mead and Fitch have been received and will appear in our next.

We have received *New Elements of Operative Surgery*; ALF. A. L. M. VELPEAU Prof., etc. Carefully revised, augmented, etc., by VALENTINE MOTT, Prof., etc. First American from last Paris edition. Translated by P. S. TOWNSHEND, M. D. New York: Sam'l. S. and Wm. Wood. 1847. pp. 1162 octavo, with an atlas containing 22 plates quarto. (From the Publishers.)

Report of the Pennsylvania Hospital for the Insane, for the year 1846; by THOMAS S. KIRKBRIDE, M. D., Physician to the institution. 8vo. pp. 36

Fourth Annual Report of the Managers of the State Lunatic Asylum, made to the Legislature of New York, February 2d, 1847. 8vo. pp. 80

Twenty-sixth Annual Report of the Bloomingdale Asylum for the Insane; by PLINY EARLE, M. D., Physician to the Asylum. 1847. 8vo. pp. 32.

Catalogue of Books on Medicine, etc., etc., for sale by Samuel S. and William Wood, No. 261 Pearl street, New York.

We have received in exchange the following periodicals:

New York Journal of Medicine, etc., New York.

The Annalist, a Record of Practical Medicine, New York.

New York Medical and Surgical Reporter, New York.

The Medical Examiner, etc., Philadelphia.

The Medical News and Library, Philadelphia.

The Western Journal of Medicine and Surgery, Louisville, Ky.

The Western Lancet and Medical Library, Lexington, Ky.

The Southern Medical and Surgical Journal, Augusta, Georgia.

The Boston Medical and Surgical Journal, Boston, Mass.

The Missouri Medical and Surgical Journal, St. Louis, Missouri.

The St. Louis Medical and Surgical Journal, St. Louis, Missouri.

The Practical Educator and Journal of Health, Boston.

Stockton and Co.'s Dental Intelligencer, Philadelphia.

La Lancette Canadienne, Montreal, L. C.

Also, Announcement of the Medical Institute of Philadelphia, for 1847, with a Catalogue of Students.

Catalogue of Jefferson Medical College of Philadelphia, Session of 1846-'47.

Announcement and Catalogue of the University of Louisville, for 1847.

## CONTRIBUTORS TO THE ILL. AND IND. MED. AND SURG. JOUR.

S. G. Armor, M. D., Rockford, Ill.

A. H. Howland, M. D., Ottawa, Ill.

A. G. Henry, M. D., Pekin, Ill.

Daniel Stahl, M. D., Quincy, Ill.

Edward Mead, M. D., Geneva, Ill.

H. S. Huber, M. D., Chicago, Ill.

David Prince, M. D., Jacksonville, Ill.

J. F. Henry, M. D., Burlington, Iowa.

Jno. McLean, M. D., Jackson, Mich.

Edward Lewis, M. D., Jackson, Mich.

Ira C. Bachus, M. D., Jackson, Mich.

J. G. Conwell, M. D., Spring Arbor, Mich.

S. B. Thayer, M. D., Battle Creek, Mich.

E. Deming, M. D., Lafayette, Ind.

G. N. Fitch, M. D., Logansport, Ind.

Elias Fisher, M. D., Waynesville, Ohio.

PROSPECTUS  
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MEDICAL AND SURGICAL JOURNAL.

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THE  
ILLINOIS AND INDIANA  
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No. 2.

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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

*Use of Hyd. Potass. in Hydrocephalus.* By THOMPSON MEAD,  
M. D., of Batavia, Kane county, Illinois.

The following cases of Hydrocephalus—the symptoms of which were well marked and decided in their character—were wholly treated by Hyd. Potass., unless there were some complications which required other means. Without detailing the symptoms as they occurred from day to day, I shall only mention the dose, &c., and the result. By saying they were wholly treated by Hyd. Potass., I mean that my entire dependence was in this, though, to some extent, other means were made use of.

CASE I—*June 16th*, 1842.—W. B., aged 5 years, strumous habit. The case was considered hopeless. The bowels having been moved by a calomel purge, I resorted to Hyd. Potass., and gave it in substance in doses of three grains every two and a half hours—the application of cold and blisters still continued. After the third dose, the pulse became slower and fuller and heat more equal.

*June 17th.*—The patient could be roused. Heat and circulation much more equalized; scarcely any appearance of convulsions or strabismus; free secretion of urine, which

was dark and rather fetid; eye sensible to light and pupil more natural. I gradually reduced the size of the dose and increased the intervals. On the fourth day I considered the patient out of danger. There was no other medicine given except an occasional dose of oil to move the bowels.

CASE II—*July 10th, 1843.*—A. H., aged 6 years, strumous habit. This case was considered incurable, and the attending physician had discontinued his visits. The bowels had been freely moved by salts and senna. I gave three grains of Hyd. Potass. every three hours; continued the counter irritation, cold to the head, as the head was hot, &c.; and gave calomel and ipecac. once in three hours, in the intervals of giving the Potass.

*July 12th.*—Perfect restoration of consciousness, though complains of some pain in the head; free discharge of urine; bowels more open; extremities warm. In short, the disease entirely subsided under this course. On the 12th, the mouth became sore with dribbling of saliva. There was none of that fetor characteristic of a calomel sore mouth. On the 15th I considered him out of danger.

CASE III—*December 20th, 1845.*—J. R., aged 4 years, strumous habit. This case was complicated with some mesenteric disease, and was considered incurable—the attending physician having discontinued his visits. The original attack was pneumonia, and attended with considerable derangement of the bowels. As the pneumonia subsided, the trouble in the brain supervened. I gave the Potass. in substance, in doses of three grains every three hours, and a pill of calomel, ipecac. and quinine once in three hours in the intervals of giving the potass. On the 25th the coma, &c., had entirely subsided, as well as all disposition to convulsions; a free discharge of urine; throat and mouth sore. There was considerable tenderness of the abdomen; evacuations from the bowels dark and fetid; general restlessness. I added morphine to the pill and gave it once in six hours, and also made use of counter irritation. He remained weak and irritable for some time but gradually recovered. Appetite became natural, bowels regular, and the enlargement of the abdomen finally entirely subsided. I continued through the entire course the potass. in moderate doses—towards the last I gave it in solution.



CASE IV—*November 20th, 1846.*—J. W., aged 19 years, strumous habit. This patient had been sick for some time before I saw her, and I inferred, from the account I received of her previous sickness, that the effusion followed congestion of the brain as a consequence of chills, &c. It was complicated with considerable hepatic disease. For two or three periods the catamenia had been almost entirely suppressed, and the chills had been followed by more or less stupor; and on one occasion the entire body was covered with purple spots. At this time the stupor was not immediately preceded by a chill. She had complained for some weeks previous of pain, dizziness, a feeling of emptiness in her head, a sensation of falling forwards which was more or less constant, and now and then double vision. About November 12th, there was evidence of hepatic disease—the liver could be felt considerably enlarged at the time I first saw her. On the 25th a severe hæmorrhage occurred from the bowels, which, however, was easily controlled by Tannin. This was followed by a discharge of pus of a greenish yellow appearance. These discharges prostrated her considerably, and immediately following this last evacuation the tenderness, &c., over the liver subsided.

*November 20th.*—The urine has been suppressed for some three days. I applied a blister on the neck and on the temples, kept the one over the liver open, and applied mustard to the extremities. I gave her what I judged to be ten grains Hyd. Potass. every three hours, and a pill of—

R.—Ext. Tarax. gr. iij.;  
Sulph. Quinia gr. j.;  
Calomel gr.  $\frac{1}{2}$ ;  
Morphine gr.  $\frac{1}{4}$ ;

every six hours.

*November 23d.*—My case book reads: "Better than has been; a free discharge of urine which was dark, &c.; pulse 98 (had been up to 118); extremities warmer; eyes somewhat sensible to light; pupils not so much dilated; countenance less expressive of suffering; relaxation of the flexors, &c."

The bowels not having moved off as much as was desira-

ble, I ordered crot. oil and soap in the form of a pill once in two hours till it should operate.

*November 25th.*—The pulse was reduced to 88; urine not so dark as on the 23d; the oil had freely moved the bowels; as the stupor subsided she evinced symptoms of mental derangement; pupils rather contracted. After the hæmorrhage from the bowels, I omitted the calomel, and increased the amount of quinine.

*November 27th.*—Better; tongue cleaning; bowels regular. From this time forward she steadily improved, the mental derangement gradually subsided, and all the functions were healthily performed.

In all cases after the dribbling of saliva commenced, I diminished the dose materially, and in some cases had to omit it for a time. These cases have been taken at random from among others in which I have tested the value of this agent, and in all the cases I have mentioned all the ordinary means had been made use of, and without any appreciable benefit, with the exception of the case of L. W. I am confident it is a remedial means of no ordinary value in this disease. The most marked effect in all the cases in which I have given it was diuresis, dribbling of saliva, and generally the rapid disappearance of the convulsions, and the insensibility.

The conditions of the brain in which I have mostly used this agent are *Hydrocephalus* and *Hyperæmia*. For the former I consider it as much of a specific as anything in medicine can be. That it will generally cure unless dependent on organic disease I aver—that it will occasionally fail I admit. *Hydrocephalus*, in a majority of cases, attacks patients in whom the strumous diathesis is predominant, and, if any reliance is to be placed in the pathological investigations of *Dana*, *Gerhard*, *Greene*, *Guersent*, *Becquerel*, and others, that the effusion is caused by a “deposition of tubercular granulations on the surface of the cerebral layer of the arachnoid membrane,” in all cases, why may not its *modus operandi* consist in effecting some change in those granulations, even if they do not cause their absorption, and in checking that diseased action on which those deposits depend? We know full well that Hyd. Potass. has singular control over strumous



affections. When it is liberally given, as it should be in such cases, heat and circulation become equalized, all the functions become healthy, but the kidneys are the first to resume their wonted activity.

About the time the heat and circulation become equalized the throat and mouth become sore—a species of ptyalism comes on, yet different from that which is occasioned by calomel. I have noticed this to a greater or less extent in all the cases which I have seen recover by the use of this agent; and I have no recollection of a case which recovered when it did not appear. I have, therefore, been led to consider it as an evidence of its *specific* or *constitutional effect*. I have seen it restore the heat in the extremities, and, to some extent, increase the amount of urine, and exert a controlling influence over the convulsions, &c., and yet the patients sink under the disease—the mouth and throat showing no evidence of soreness. If it cannot be considered an evidence of its specific or constitutional effect, it certainly must be regarded as a curious coincidence. I have not observed any injurious effect from it on the stomach and bowels, even when given in large doses and frequently repeated.

*Hydrocephalus* has been one of the *opprobria medicinæ*, and I am convinced that it will not much longer be so if physicians would give Hyd. Potass. a thorough trial; though not to the exclusion of some of the ordinary means, such as counter irritation, cold to the head when necessary, keeping the bowels freely open, &c.

In getting at the true value of a medicinal agent, it is the duty of a physician to take into consideration its effects on the animal economy in health, the various conditions of the system in disease, and the circumstances by which the patient may be surrounded, which will, to a greater or less extent, modify its effect on the organization. The opinions that may be entertained of the remedial effect of any particular article of the *Materia Medica* unless its operation is investigated in this manner, are very often erroneous, and this diversity of opinion has only arisen from the too careless manner of tracing the relation of cause and effect, to the extent it can be in medicine. Medical evidence must of necessity be cumulative—when one fact is indisputably

established, it is material either in strengthening or refuting theories, and becomes the foundation for other improvements.

*January 15th, 1847.*

[We have taken the liberty of publishing the above with the author's name, for which we hope he will excuse us. We could not suppress it, and we have adopted the rule of publishing no anonymous article.—*Editors.*]

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ARTICLE II.

*An Inguinal Hernia radically cured by scarifying the Neck of the Sack.* By G. N. FITCH, M. D., Professor of Institutes and Practice in Rush Medical College, Chicago, Illinois.

James W., a farmer, aged 35 years, had an ancient scrotal hernia, of large size. On the 20th December, 1845, it became strangulated. My friend, Dr. A. B. Buchanan, of this place, (Logansport, Ind.,) visited him and left no exertion untried, for the space of ten hours, to remedy it, but in vain. The doctor then requested me to operate. No difficulty was experienced in the operation other than what arose after the division of the stricture from the reduction of a vast mass of intestine. Knowing the tumor would doubtless return after his recovery from the operation, and seriously interfere, as it had heretofore done, with his labor, his only means of subsisting himself and family, I determined to adopt Richter's advice (*Traite des Hernies*, p. 191), and scarify the neck of the sack to procure the adhesion of its sides. Accordingly a probe pointed bistoury was carried through it, by which it was freely scarified in every direction. Considerable peritoneal inflammation followed, but little, if any more, however, than would have followed the operation without the scarification. It yielded readily to appropriate treatment. Complete obliteration of the neck of the sack was obtained; as up to this time (March, 1847), there has been no appearance of the hernia, although the patient has used the utmost physical exertions incident to his laborious occupation in a new and heavily timbered country.

This is the first case of the kind in which I have followed



Richter's advice; but if cases present themselves requiring operation for strangulated hernia, it most assuredly will not be the last. Indeed I know of no good reason why so mild a means of radically curing this, at all times, troublesome and occasionally dangerous accident, is not generally resorted to. The most that can be urged against it is its occasional failure—but what surgical operation is not liable to the same objection?

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ARTICLE III.

*Observations on Prolapsus Uteri and its Treatment; with an account of Dr. Charters' Abdominal Supporter.* By JOHN EVANS, M. D., Professor of Obstetrics and the Diseases of Women and Children, in Rush Medical College, Chicago, Ill.

Prolapsus Uteri is divided into three classes by the degree of the displacement: 1st. Partial; 2d. Incomplete; and 3d. Complete prolapsus.

The most common displacement of the uterus is what has been termed by authors partial prolapsus. It consists in a depression of the viscus below its natural position; the os tincæ descended but a little way into the vagina, and pressing its superior extremity forward into a larger fold than natural, just before its attachment to the cervix. This is liable to occur at all ages after puberty, while complete or even extensive prolapsion is seldom found in the female who has never been pregnant.

Incomplete prolapsus is a descent of the uterus so that the os tincæ approaches near to, or protrudes a little beyond the os externum. It is second in frequency.

Complete prolapsus is fortunately extremely rare, and consists in an inversion of the vagina, and the protrusion of the uterus in it without the labia. The forms of the disease differ pathologically only in degree.

The pathology of prolapsus uteri has been but imperfectly understood until quite recently; and in fact there is yet a veil of obscurity hanging over the subject.

Without hoping entirely to remove it, we will inquire into the condition of the parts in health, and the changes that are wrought by displacements of the uterus.

The uterus is situated near the centre of the pelvic cavity, and floats freely between the rectum posteriorly and the bladder before, with its fundus presenting upward, upon which rests the floating convolutions of the small intestines. Above and to the right is the cœcum of the colon, and to the left the sigmoid flexure of this larger intestine, both of which float to some extent, and are liable to press down and rest upon it. On either side of the uterus are its only ligaments; the broad—simply a fold of the peritoneum—containing the others, all of which are loose, and afford no other support to the organ than to prevent great lateral inclinations or extensive rotations.

Below, it is received by the vagina, which is attached to and surrounds the cervix. Posteriorly, the vagina, for a distance, has no attachment, being lined exteriorly by the peritoneum, and here, of course, it assumes a membranous character. Anteriorly it is bound to the bas fond of the bladder by the vesico-vaginal septum, which can give it but little support, as the bladder is entirely loose and flexible at this point. The anterior and posterior walls of the vagina, being pressed in by the rectum and bladder are in contact, leaving the lateral walls narrow, which are bound by loose cellular tissue to the sides of the pelvis. Thus it is manifest that the superior portion of the vagina can afford but little support to the uterus. The vulvar extremity of the vagina is much more strongly bound by the lateral cellular attachments, the recto-vaginal and the urethro-vaginal septa. The vagina is situated in the curvilinear line of the common axis of the pelvis, and forms, at its attachment to the uterus, an angle of about sixty-five degrees with it. It rests upon the rectum and the perinæum, which are supported by the transversus perænei and levator ani muscles, which form the floor of the pelvis and support its viscera. •

In connection with this description of the parts, the position of the pelvis must be borne in mind. The plane of the superior strait being inclined forward and downward at an angle of about forty degrees, with the promontory of the



sacrum projecting forward over its cavity, relieves the pelvic viscera and the perinæum, of much of the weight of the abdominal viscera and the force of the impulse given them downward by the contractions of the diaphragm, by throwing them forward upon the pubes and abdominal parieties. But at the same time it places the vagina more nearly in a vertical position, and thus places the uterus more directly over it.

The perinæum and the abdominal muscles just above the pelvis, are antagonists to the diaphragm and the superior abdominal parieties. This is a fact I do not recollect to have seen stated in this connection, of which any one may satisfy himself by placing his hands upon the abdomen above, and the regio-pubis, while making an effort at *faccecation*. The regio-pubis will be found to project during the effort, and preventing it from doing it will materially interfere with the force upon the perinæum.

The relaxation, at least a fixed position without contraction, of the parieties of the lower part of the abdomen, to a certain extent, is necessary, to allow the force from above to press the abdominal viscera past the promontory of the sacrum into the pelvis.

Now when the system is debilitated, and the connections of the vagina are relaxed, the support to the pelvic viscera given by the transversus perinæi, levator ani, and the lower abdominal muscles being enfeebled, straining efforts at stool, in lifting, or other violent exercise, must tend directly to produce prolapsus. When from such causes the uterus is pressed downwards and forwards into the vagina, it is exceedingly difficult to induce it to resume its natural place—especially if the pressure of the abdominal viscera, the relaxation, or the efforts that caused it are yet operating.

For the symptoms of prolapsus the reader is referred to systematic authors.

The great frequency of the occurrence of a prolapsed condition of the uterus amongst the females of the west, must have attracted the attention of almost every physician in this region of country. And he has been extremely fortunate in practice who has not been much annoyed and perplexed in its treatment.

It is believed that displacements of the uterus are much

more common in the western country than in any other section of the United States, for which there seems to be several good and satisfactory reasons found in the habits of life and want of general health amongst the sufferers.

The following causes, with others, operate to produce prolapsus uteri in almost all countries, but they are mentioned as being more common in the west.

1st. The female portion of our community are subjected to many more hardships than in older settled countries, and perform much more bodily exertion in walking, lifting, &c.

It is not unfrequently the case that women in the country labor in the field, reap grain, mow and pitch hay, plough, hoe, and in fact perform almost all the laborious duties so fitly assigned by the rules and customs of civilized society to the other sex. I know a widow lady who, with a family of daughters of robust constitution, carried on the farm with little if any help, except from them, for two or three years after the death of her husband. The consequence is, the girls have been for some time under treatment for prolapsus uteri. In the settlement of new countries there are always privations which impose upon females a necessity for greater bodily exertions than where the conveniences of life are abundant. This renders such exertions common, fixes public sentiment in favor of them, and they are carried to a much greater extent than necessity actually requires.

2d. They are subject to these oftentimes while the general health is impaired from the epidemic diseases of the country—intermittent and remittent fevers.

From what has already been said in reference to the pathology of prolapsus, the influence of general debility in predisposing to it, and rendering slight exciting causes most effective in its production, will be apparent.

In the summer and autumnal months the western country is usually visited by an epidemic of intermittent and remittent fevers, with a train of concomitant local affections either produced or modified by it. These often debilitate to a great extent, when appearing in their milder forms, without causing patients to entirely suspend their daily avocations. This is more particularly the case with females during these seasons of the year, when servants are scarce and



often other members of the family, from sickness, require attention, and hence arises a fruitful cause of displacement of the uterus.

3d. The epidemic diseases often derange the functions of the uterus, producing engorgements while the parts are much relaxed, from the debility they produce.

The diseases of the west particularly affect the abdominal viscera. The congestions that attend every paroxysm of intermittent, spend their principal force upon the blood-vessels of the abdomen; hence we have enlargements of the spleen and liver, congestions of the portal circle, deranging the functions of the stomach and bowels; often causing the latter to become loaded with fœces, and engorgments of the uterus and its appendages. The load thus accumulated upon the pelvic viscera, together with their increased weight, can but have the effect to press them down and produce prolapsus.

4th. They frequently rise too soon after confinement and while yet feeble, enter upon the performance of the ordinary duties of housewifery.

I have thought that, from imprudence, and, in some cases, apparent necessity, the women of the west rise much earlier after confinement than in most other countries. This is a well known and operative cause of uterine displacements in all countries. The increased weight of the uterus, the relaxed condition of the vagina and perinæum, make it a matter of wonder that any female should rise in ten days or two weeks after delivery and escape the most troublesome prolapsus. Yet our western women often rise within the first week, and sometimes even within three or four days.

*Treatment.*—The treatment of prolapsus, as pursued, presents as many modes of practice as any other disease of the country. This arises from the diversity of opinion in reference to its pathology, the various degrees of prolapsus, and the variety of circumstances under which it occurs. And to a great extent, failures to relieve it depend upon a want of discrimination in making out the case and adapting the means.

The treatment is properly divided into the constitutional, local, and mechanical.

Of the constitutional treatment I do not propose to speak further than to say that it is important to relieve any disease under which the patient may be laboring by its appropriate remedies, as far as possible, and to restore the tone of the system. This is frequently exceedingly difficult, in consequence of the irritation arising from the displacement of the uterus produced by its nervous connections and extensive sympathies; and the debilitating leucorrhœa, which often attends it, sometimes as a cause and sometimes as a sequence. But generally an invigorating regimen and the use of tonics will be appropriate in the absence of inflammatory affections.

The local treatment must be pursued in connection with the general, and principally consists in astringent and tonic injections thrown into the vagina, bathing the vulva, &c.

The indications of mechanical treatment are to replace the uterus and retain it in its natural situation. These vary in the different degrees of displacement.

In the complete prolapsus the reduction is often difficult, and sometimes, in cases of long standing, impossible in consequence of adhesions. In incomplete it is effected with less difficulty. And in the partial generally very readily.

The operation is simply pressing the organ upward in the direction of the axis of the pelvis to its place.

The difficulty of filling the second indication is much greater, and has called forth the inventive genius of many physicians in devising apparatus.

Those in most general use are pessaries and abdominal supporters.

In complete prolapsus, after its reduction, the pessary properly applied, for a time at least, will be found the most successful. But it seldom effects a cure. The mode of its operation is such as to keep the vagina distended laterally and contracted longitudinally, and of course this will not serve to place the uterus in its proper situation, and strengthen the resistance to its descent into the vagina.

Pessaries are of various shapes and materials, of which I do not propose at length to speak, but will give my opinion in reference to the best, and the reasons for it. All those pessaries that depend upon their lodgment in the vagina,



simply, for the support they give the uterus, although they may afford temporary relief from the descent of the uterus will do as much if not more harm than good eventually. The reason is plain—They distend the vagina, or they will not remain in situ, and of course cause it and its attachments to become relaxed to a greater extent than before, and thus weaken the strongest and almost the only natural support to the uterus. But there is a class of pessaries, to some extent although not entirely free from this objection—I mean stem pessaries. They consist of a bulb resembling the ordinary pessary, to which is attached a stem that protrudes from the vulva and is supported by a perineal compress or T bandage. In this the pessary may be small so as not greatly to distend the vagina, while the stem supports it and the uterus resting upon it, which can be so regulated in its length and attachment to the bandage as to retain the the uterus in the position desired.

The greatest objections to this are its distension, to some extent of the vagina, its unpleasantness to the patient, and the difficulty of introducing it; the latter of which has been almost entirely removed by an ingenious contrivance of Dr. Saunders, of Monrovia, Morgan county, Indiana, which is as follows: He takes a small gum elastic pessary, has a metallic stem made with the lower end suitably arranged for attachment to the T bandage, the shank smooth and round, of the proper length, with the superior end bifurcated so as the branches pass off in opposite directions, and almost at right angles with the shank. These branches he inserts into the pessary within the perforation on opposite sides. The shank will then fold down upon either edge of the pessary, and it can be introduced edgewise in the ordinary manner. Dr. Saunders, whose judgment and intelligence render him every way qualified to judge, has had an extensive practice with this instrument, and speaks highly of its usefulness. Another equally good, if not a better instrument, consists of a tube of gum elastic, of about the size and length of the vagina, made thin, filled with air, and hermetically sealed. This may be readily introduced, or removed for the purpose of being cleansed (a matter of much importance in all pessaries). It is light, and the only thing disagreeable or incon-

venient about it is, that it requires to be kept in place by a compress on the vulva, retained by a T bandage. By the use of either of these, the complete or extensive, may be converted into a case of partial prolapsus. To relieve which it is necessary that the vagina, its attachments, and the perinæum should be allowed to support the uterus, for, without exercise they become weaker instead of stronger.

In partial prolapsus, the pessary does more harm than good, as I have had repeated opportunities of witnessing.

The abdominal supporter, in a certain class of cases is all that could be desired.

When the prolapsus is partial and the lower part of the abdomen prominent, it will generally afford immediate relief.

There are a host of different patterns for abdominal supporters—most of which have been patented by their inventors, and of the physicians, I may say disgracefully, for it tends to reduce them from the high stand they occupy in a liberal and scientific profession to the level of a mere handicraft or trade, to be pursued, not for the blessings it dispenses, but solely for the emoluments to be derived from it.

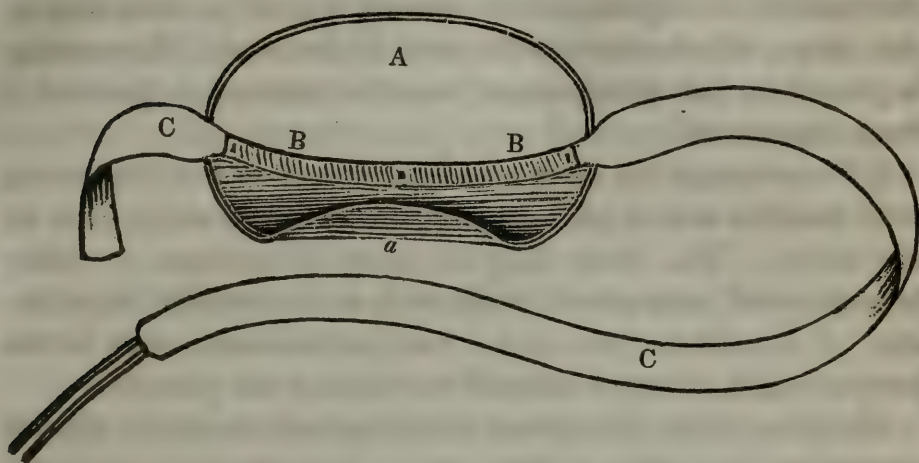
Many, no doubt unthoughtedly, have pursued this course ; but they should remember the odium that attaches to the name of *Chamberlain*, who might have been ranked amongst the greatest benefactors, for the invention of the forceps had he not basely kept it secret, for the purpose of gain, until his name acquired a blot that neither the famed Letheon, nor even the waters of Lethe themselves, can ever wash away. There are, however, a few honorable exceptions, one of the best of which was invented by WM. M. CHARTERS, M. D., of Lebanon, Ohio. And as it answers all the purposes that can be derived from this class of instruments and possesses some advantages over all others, I most heartily recommend it to the profession. It is cheap and can be readily got up in any of our towns and villages in the country.

I had hoped, ere this, to have seen a full account of it from the pen of its accomplished inventor, given to the public. Shall we not yet hear from him?



The following cut will enable me to describe it so, that physicians may understand it and have it manufactured.

DR. CHARTERS' ABDOMINAL SUPPORTER.



A *a* represents a plate made of tin, from six to seven inches long, to suit the patient. The object being to allow it as great a length as can be worn without reaching so near the superior anterior spinous process of the illeum on each side, as to cause irritation from pressure upon it. Its width is four inches. The edges being rounded as represented in the cut. The margin of the plate is wired to give it strength. The lower edge at *a* is turned up so as to project forward from a half to three fourths of an inch. At about two-thirds of the distance from the upper margin to the lower in the longitudinal centre of the plate, just above the margin that is rolled forward is a pivot, generally made of an ordinary stove-pipe rivet, and fastened there by passing the rivet through a small piece of tin and soldering it on with the head of the rivet resting against the plate. The end of the rivet should protrude one-third or half an inch. The plate is then swedged so as to give it a slight convexity at each end, on the back or side receiving the pivot. Thus prepared, it is covered with morocco, dressed buckskin, or velvet completely. The covering may be glued or pasted to the plate to make it fit smoothly.

B B represents a steel spring, six inches long, by one and a half inches wide, made thin enough to give, under moderate pressure; with a curvature, so that when the back or

convex surface is laid on the plate, its ends will be about an inch above it. In the centre of this is a round hole, just large enough to receive the pivot before described. The outer ends terminate with an oblong square ring, which may be made in the end of the spring, or by turning it over a wire ring of this shape, which receives the ends of the strap. The spring is placed on the pivot, which may be battered to prevent it from slipping off.

C C represents the strap attached to each end of the spring, with buckles at one end and straps to be received by them at the other. The strap may be made of morocco or other leather, or of gum elastic web, such as is used for suspenders. It should be two and a half inches wide, and of the proper length to reach around the hips of the patient.

The plate, with the spring thus attached, should be placed upon the regio-pubis, and the straps passed around the hips, and buckled so as to afford the required amount of pressure.

This will support the abdominal viscera, and by antagonising with the promontory of the sacrum, prevent to a great extent, the impulses otherwise given to their pressure down upon the uterus.

From what has already been said in reference to the mechanism of these parts, it will be seen to be particularly appropriate in cases where there is much tumefaction of the abdomen, from an increase in size of its contents.

This instrument has an advantage over all those that depend upon a spring passing around the hip, in that it can be worn in any position and more comfortably, it is more readily adapted to the patient, and can be regulated in the amount of pressure to suit any case.

It has an advantage over those that consist simply in pads and straps in that it makes greater pressure directly over the pubes, the point where it is required; and over all others in that it can be readily got up in any part of the country, in a short time, and at a moderate expense—say, from one dollar to two and a half, or more, according to the style.

I have been using this instrument for the last four or five years, and with the most satisfactory results, in almost all cases of partial prolapsus, whether it was the original condition of the case, or was that following an extensive dis-



placement partially relieved, as herein before mentioned. In some cases where I have tried it, it did not seem to answer well, in consequence of the prolapsus not depending upon the pressure of the abdominal viscera. Those cases will generally be marked by a flat abdomen.

I do not believe it or any other abdominal supporter will answer a good purpose, but may do harm, in those cases where the displacement is produced by an increased weight of the uterus itself, or from any tumor in the cavity of the pelvis.

The following case is selected from amongst others as one of the most satisfactory:

Mrs. S., a young lady recently married and of good constitution and general health, was affected with partial prolapsus. Upon making slight exertions or fatiguing herself, she was repeatedly thrown into paroxysms of hysteria, which, by the ordinary remedies and a few days' rest in the recumbent position would subside. These attacks were frequent during eighteen months, when I applied Dr. Charters' supporter, which gave the most perfect relief. Having occasion, some time after, to use the instrument she was wearing as a pattern for the workmen to make others by, she assured me that she was rendered miserable by its absence, but when replaced was entirely relieved.

There is a point in the management of prolapsus in child bearing women too generally over-looked or neglected by physicians—it is the favorable opportunity afforded at confinement for effecting a cure.

The great change effected in the condition of the parts by pregnancy, renders it a most favorable time while they are resuming their natural and quiescent condition, to restore them to that position and tone which will be a cure of the displacement. Such patients should be rigidly confined to the recumbent position while the abdomen is properly supported until the parts have regained their natural size and relation.

## ARTICLE IV.

*On the Use of Strychnine as a Remedy for Intermittent Fever, being the Substance of a Clinical Lecture delivered at the Chicago Hospital, May 1st, 1847.* By DANIEL BRAINARD, M. D., Professor of Surgery in Rush Medical College.

Those who have been in attendance at the College Dispensary during the past winter, as well as those who are now following the visits of this establishment, must often have their patience wearied by the number of cases of old intermittents which present themselves, and which, in spite of the best directed treatment we have been enabled to give them, had relapsed, and returned from time to time for assistance. For ourselves, far from being wearied with this great number of cases, thought by many uninteresting, we have subjected them to the most careful examination in order to determine their causes and pathology, and have conducted a series of careful trials in order to determine the value of different remedial agents in their treatment.

In reference to the cause of intermittents, notwithstanding their extreme prevalence and the great number of observers who have directed their attention to it, it is as much involved in doubt as ever. The agency of "malaria" is doubted, and, as it appears to us, with great reason; for a number of these fevers are produced, and all of them may readily be reproduced, in situations where the agency of such a substance cannot be suspected. Nor have the other theories advanced to account for its production appeared more reasonable. The only circumstance which has seemed to us to be invariably present at its production, in every individual *in the first instance*, is an elevated temperature, whose degree we cannot, at this moment, specify with certainty, but which is probably about 80° of Fahrenheit's thermometer, and which requires to be continued for a certain length of time. But whether this acts directly upon the system or through the medium of some exhalation or miasm, we are ignorant.

In regard to its pathology, a careful observation of a great number of cases has led us to the following conclusions:



1st. The first link in the chain of morbid actions constituting periodical fever consists in a derangement of the digestive functions, indicated by furred tongue, loss of appetite, flatulence, deranged action of the bowels, &c.

2d. The languor, lassitude, sense of weariness and inactivity of all the faculties, considered by Smith and others as the first perceptible deviation from healthy action, is but secondary to the imperfect assimilation.

3d. Soon after the occurrence of the second class of symptoms there is a perceptible change in the blood, the fibrine being, as in all other fevers, diminished in quantity.

4th. These, with general derangement of all the secretions constitute as far as we have been able to observe the uniform symptoms of fever before the occurrence of a paroxysm.

5th. Persons thus affected may induce a paroxysm of intermittent fever by exercise, exposure to cold, mental action, eating indigestible substances, &c. Whatever acts with even a moderate degree of force in deranging the functions of the system is capable of inducing the paroxysm. In considering the treatment of these persons it is important to bear in mind that the state of debility and deranged actions of all the organs precede, in all cases, to some degree, the occurrence of chills and their sequelæ, and that when these latter are arrested, the same state which preceded them still persists, often in an increasing degree. So that it becomes necessary in speaking of the treatment to separate the means calculated to interrupt the paroxysms, from those capable of restoring the energies of the body, and preventing their recurrence.

This distinction has, it is true, been made by medical writers generally, but not to the same extent as among the people, where the "breaking the fits" and curing the disease are generally distinguished from each other.

In a considerable number of cases the same causes which induce the paroxysms in the first instance, will serve to arrest them. Thus sudden fright, a shower bath, terror, electrical shocks, the inhalation of ethereal vapor, intense mental application, &c., are capable of arresting the periodical accessions temporarily. There are a large number of medicines capable

of effecting the same object more certainly and for various periods of time. Emetics, cathartics, sudorifics, narcotics, stimulants, and tonics have been used. Specifics or febrifuge medicines, whose mode of action is unknown, are more frequently relied on. Under this head quinine, arsenic, salicine, piperine, prussiate of iron, and strychnine, are the most prominent. The sulphate of quinine is an article so safe and so uniformly efficacious, that if the arrest of the paroxysm were all that were required we should, in the greater number of cases, have occasion to seek for no other remedy. But unfortunately it generally exerts but little other influence over the system than of arresting them, and they return with great regularity usually in from seven to fourteen days. In proportion to the number of returns the quinine loses its influence, so that after taking it, as most of the patients who present themselves here have done, from ten to twenty-times, its effect is very slight; a large dose often failing entirely to check the disease. On this account, and from the inutility of wasting large quantities of the medicine, we have been obliged to search for other means as substitutes for it, in these cases. The arsenial solution has been tried in a considerable number of them, and it has been found to succeed in most instances where the quinine failed and is in general also more permanent. But sooner or later the disease returns after its use, and the state of debility upon which these old cases of ague attend, is not in any degree removed by its use.

The ordinary form of using the quinine has been, with us, to give it in doses of from five to ten grains repeated once or twice daily till  $\mathfrak{E}j$  or  $\mathfrak{E}jss$  has been administered. In using the arsenial solution one grain was used in sixteen doses during forty-eight hours, at equal intervals. Finding the cases to return regularly in spite of their use, we have sought other means. The trials of salicine made at the New Orleans Charity Hospital and elsewhere, show that nothing is to be expected of it in these cases, although it is worthy of a trial in other diseases. Piperine is still less useful, and does not, according to our observations, possess any advantages over pulverized capsicum, which frequently is a useful adjuvant to the quinine. The prussiate of iron has also been tried



either alone or in combination with quinine, but it is without efficiency in severe cases, and possesses no advantages over the quinine where it succeeds. It will be readily perceived, from this brief review of the principal means we are in the habit of using against agues, that there is an urgent necessity for researches directed with a view of finding a substitute for the quinine or some means to be used in aid of its action; and this necessity will appear the greater when we take into consideration the fact that nearly all the laboring population of this State have been affected by the ague and that, after a few returns, the larger number are unable to purchase the quinine in consequence of its high price. It is probable that the inhabitants of Illinois have, during the past year expended not less than from \$100,000 to \$200,000 for different ague medicines.

Profiting by the opportunity afforded in a public institution, we have determined to make trial of a medicine which has been often recommended but scarcely ever used in this country for the cure of intermittents: namely, the strychnine. Our attention, was directed to this substance from the manifest analogy between its effect and those of quinine, from the benefit which has been found to result from its use in chronic diarrhœa and debility of the digestive organs, and from the powerful tonic effect it is known to exercise over the whole system, but especially the nervous and muscular systems. The result has been most satisfactory. If it has not exhibited, in every case, the promptness of quinine in arresting the paroxysm, it has yet done so in four-fifths of them in which it has been used, while in the permanence of its action it has more than counterbalanced any defect in promptness. Indeed, it is highly probable that this apparent defect of action in some cases may be owing to the caution with which it was given, since, sometimes it was found to succeed in cases where quinine in full doses had failed.

The mode of administration is as follows: one-eighth of a grain is given thrice daily, after meals, in form of powder or pill until one grain is taken, mixed, in either case, with flour or starch. If pills are used, they should be recently made and not allowed to become dry and hard. There is an advantage in giving it after meals, as it then becomes

mixed with the contents of the stomach, and is less likely to produce unpleasant effects. Smaller doses were at first used without effect.

It is given in combination with cathartics when the bowels are costive, with diaphoretics when there is much reaction, and in general combined with the same medicines as the quinine.

*Effects.*—In much the larger number of cases the patient is not conscious of any sensible effect, except the arresting of the fever and a sensation of well-being that is usually experienced for two or three days after its use has been discontinued. In a smaller number of cases, the patients stated that it produced intoxication; and in a still smaller number, vertigo, with pain in the head and nausea were experienced. In order to illustrate its effects, we will relate a few cases where it operated favorably, choosing those which are best calculated to exhibit its powers under different circumstances.

CASE I.—I. F., *Æt.* 40 years, had, in August, 1846, a severe remittent fever, from which he entirely recovered, except that there was some weakness remaining. When he attempted to work he was attacked with intermittent fever, and this continued to recur during the winter, being usually checked by quinine, of which one scruple would arrest it for from two to three weeks, but he was too unwell during the whole winter to do a day's work in one day. February 25th, he commenced taking strychnine one-eighth grain three times daily till one grain had been taken, and then the same quantity every third day for sixteen days. Since which time to the present, May 1, 1847, he has had no return of paroxysm, but has pursued a laborious occupation, and says he never felt better.

CASE II.—I. S., a servant girl, had, in the month of July, 1846, an intermittent fever which has continued to recur for seven months, every two or three weeks being arrested by quinine and various patent preparations. March 1st, she commenced taking the strychnine, one-eighth grain thrice daily till one grain was taken. Since which time she has had no return of disease, but says she feels well in every respect.

It would be easy to multiply these cases, but they present



such similarities that it would be but a repetition of the same thing. I will therefore give you the result of its administration in the college dispensary up to the first of April, 1847, its use having been commenced about the 20th of February. I reject the cases treated in this hospital and in private practice since that date, as the time has as yet been too short to judge of its permanent influence in these cases. Up to the first of April, 1847, the strychnine was prescribed in the way described in case No. 2, in eighty-three cases.

Of these it had no influence over	-	-	14 cases.
It arrested the paroxysms for one week in	-	-	3 cases.
For two weeks in	-	-	6 cases.
It arrested it permanently, or till May 1st, in	-	-	60 cases.

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Making the total of - - - - - 83 cases.

The cases in which it is put down as permanently arrested are those in which there has as yet been no return. Of the above, two cases had taken the quinine without the smallest effect, but were relieved by the strychnine. Nearly all, and probably every one, had taken the quinine from time to time with only temporary relief. All were old cases in which there had been from two to twenty returns of the disease in the course of twelve months. The cases in which its effects were most favorable were those where there was no local inflammation or disease. Those where it was least useful were cases complicated with dropsy, chronic bronchitis, or phthisis; for this latter is, after all that has been said to the contrary, a very frequent effect of ague. When the chills occur in the evening it indicates a tendency to hectic and the medicine is then unsuccessful.

*Dangerous and Inconvenient Effects of Strychnine.*—In but three of the eighty-three cases above stated, were the symptoms of nausea and vertigo present. It is, however, obvious that so active a medicine cannot be entrusted to ignorant people without dangerous effects sometimes following its use. Thus, an individual who forgot to take his pill after breakfast, made up for it by taking two pills after dinner, and had as the effects of this dose (one-fourth grain) severe spasms in the legs. Another, thinking if one would do good more

would do better, took six pills at once, and his wife, who seemed to think it an excellent joke, said it cramped him "all in a heap." A third was asked by a physician what she was taking, when she showed him the powders. Taking it for quinine, probably, and forgetting the rules of medical ethics as well as the dictates of prudence, he called for a cup and gave her six at a dose. She was affected with severe cramps, which he mistook for hysteria and administered tinct. assafœtida. She recovered without other ill effects. These cases, while they show the necessity of caution, show also that it is less dangerous than is supposed by many. In order, however, to obviate the danger we have lately adopted the practice of combining gr.  $\frac{1}{8}$  of it with gr. xx of starch, and gr. ij of pulv. ipecacuanha. From the bulk and nauseous taste there is little danger of a person taking more than one dose, and if several were swallowed at a time the effect would be to produce vomiting. In fact this dilution of the medicine reduces it to about the strength of quinine, for which it is usually mistaken by patients, and hence takes away the principal danger of its use.

From the facts and cases here stated we are justified in concluding that, in a very large number of cases of ancient agues attended with debility, and unaccompanied by local inflammation, the strychnia is very nearly equal to the quinia in arresting the paroxysms, and much superior to it in removing that state of debility and derangement of the secretions, which we have already stated to constitute the first and persisting pathological state of the disease. Considered merely in an economical point of view, its use would be a great gain, for one grain is found in the cases in which it succeeds to equal in efficiency from a scruple to a drachm of quinine. As a useful auxiliary and, in some cases, as a substitute for quinine, it seems to promise favorably, and we lay these observations before the profession in the hope that by further and various trials, the form and manner of its administration and the cases and circumstances in which it is useful will be accurately determined.



## ARTICLE V.

*Two Cases of Foreign Bodies in the Air Passages.* By P. A. ALLAIRE, M. D., of Aurora, Illinois.

In February, 1843, a little boy of mine, aged two years, was, about 2 o'clock, P. M., whilst eating a piece of cake, suddenly siezed with the usual symptoms of suffocation, which follow the introduction of a foreign body into the trachea. Being absent at the time, a neighbor took the child and thrust her fore-finger deeply into the pharynx, and pushed down, as she stated, the bit of food. The child immediately recovered and resumed its wonted playfulness. On my return, an hour after, I examined the air passages, but could not discover anything unusual. In the evening, about 8 o'clock, the child, while sleeping quietly, coughed slightly, and then was again attacked with apparent fatal suffocation. A physician being next door, was at once called in, who gave an emetic and applied hot cloths to the chest. I suggested opening the larynx, but from the history of the case he supposed it unnecessary. The child expired in about five minutes.

*Post Mortem Examination.*—Every part of the air tube looked natural except a small red spot immediately beneath the epiglottis, where was lodged a common white bean. In consequence of the contact of this body, I judged that spasmodic closure of the valve was the cause of death, for the bean did not more than half fill the passage. It doubtless had been raised from the bronchia by the cough which occurred a few minutes before.

CASE II—*February 5th, 1847.*—Was called in haste to see a little boy, *Æt.* 14 months, who was said to be dying. I was in the house in a few moments, and found the little fellow very comfortable. The mother stated that while playing with some corn a short time before "he had got some down the wrong way and that it had nearly strangled him." I listened to the breathing, and could distinctly hear a clapper-like noise opposite to the upper end of the sternum—the respiration was quite easy. I left the child, and directed that

if the suffocation again came on, it should be held up by the feet and struck with the hand between the shoulders.

*February 6th.*—10 o'clock, P. M. Dr. Eastman in consultation. The child has had two attacks of suffocation since last night, and the act of respiration is rather quicker than natural, otherwise very comfortable—no sound now indicates the location of the foreign body, but the efforts made for its expulsion have not succeeded. Under these circumstances, it was decided that the tracheotomy was necessary. After some hesitation the friends consented. The child being very short-necked and fat, I had him secured by an assistant sitting in a chair, the nape of the neck and shoulders were laid on my left knee and the head thus thrown back and firmly held by another assistant. Sitting on the left of the patient, I commenced the incision at the sternum, carried it upwards over the centre of the trachea an inch and a half and carefully cut down to the tube, the child meanwhile screaming and struggling. I then fixed the trachea with a hook, opened it at the centre of the incision, and then introduced a probe-pointed bistoury by which the opening was extended upwards and downwards. After allowing the child a few minutes rest, search was made for the kernel of corn and continued, with short intervals, for an hour without success. The operation, though borne well, left the child somewhat exhausted, and it soon fell asleep. The wound was covered with adhesive straps, which were directed to be removed if suffocation came on. Respiration is carried on mainly through the natural passage, but a little air passes through the strips of dressing.

*February 7th.*—6 o'clock, P. M. The last twenty hours have been passed very comfortably. No cough, or suffocation; no symptoms of inflammation; wound looks well. Nothing done except to renew the dressing.

*February 8th.*—Afternoon. Dr. Hubbard in consultation. Symptoms of bronchial inflammation have come on during the day, and one fit of suffocation which lasted a few moments this morning. Dr. H. made another search for the foreign body, but was unsuccessful. Prescribed tart. ant. et potass., one eighth of a grain every hour, and poultice to the chest.



*February 9th.*—Bronchitis increased and patient sank at 4 o'clock, P. M.

*Inspection three hours after Death.*—The mucous membrane of the bronchia, from their bifurcation, presented increased redness, with slight effusions of mucus. In the right bronchial tube, about an inch from its origin, was found a kernel of corn, swollen and impacted in the part. The larynx and trachea were normal, except slight redness around the wound.

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ARTICLE VI.

*A Case of Acute Rheumatism—Metastasis to the Heart—Mal-Treatment—Death.* By W. WADSWORTH, M. D., of Racine, Wisconsin Territory.

Mr. B. P., *Æt.* 32, who had pursued a laborious employment, that of brick-making, was attacked about three months since\* by acute rheumatism, confined chiefly to the left shoulder and arm. While yet about the streets, his arm suspended in a sling, he stepped into the office of a Botanic German Physician, who professes extraordinary skill (by looking at the urine!!) in diagnosing diseases as well as curing them. An examination of his case led to the remarkable discovery that his shoulder was out of joint. An attempt was immediately made to reduce it, which, from the inflamed and tender state of the member, was attended with extreme suffering, fully satisfying the patient of the difficulty, and inspiring no little respect for the man whose far-reaching intellect had unravelled his complicated and, up to this time, unsuspected malady. Thus deceived at the outset, he more readily became his dupe and, as the sequel will unfortunately prove, his victim.

In the course of the disease, and, as nearly as can be ascertained, at an early period, there occurred a metastasis or translation of the inflammation to the heart. This alarming event, for which an energetic and well-timed treatment

\* The case occurred March 20th, 1846.

is required, was wholly overlooked, and, what is worse, maltreated by stimulants and tonics, increasing the force of the circulation, confirming and riveting, as with fetters of iron, this dangerous but not obscure disease. The consequences of this practice were soon apparent, outraging pathological laws as well as therapeutic indications. For as the circulation was unduly augmented and raised above the natural standard, and urged on by the irritated, inflamed, and laboring heart, nature struggling to find some avenue through which to offer mitigation, permitted, or rather forced the blood to gush freely forth from the nose. A temporary calm was thus induced. But stimulants reapplied, the same results were again and again witnessed, till palor and exhaustion coming on, nature, in her unequal struggle, gave signs that all was lost! At this time, a medical man of some experience in these cases, by the urgent request of a friend, saw him, pointed out the disease and its probable consequences; but his opinion was wholly disregarded, so strongly were they entrenched by the loud and confident assurances, of their attendant, of a successful issue—a speedy and complete restoration; and these falsehoods, backed up and sustained by another charlatan who, in consultation with him, declared “that whatever might be the difficulty, nothing ailed the heart.”

In the meantime the disease made rapid progress. The impulse of the heart was not only felt at each pulsation in the chest, but through the entire brain, accompanied by paroxysms of laborious breathing, intense anxiety, and unmitigated agony.

At this late period I, with my friend Dr. Smith, was called in. The history, and a careful examination of the case, clearly revealed that the curative indications had passed; that organic disease had seized on the citadel of life, and the resources of our noble art could alone mitigate urgent symptoms, and smooth the rugged pathway to the grave. He shortly expired.

A post mortem examination was obtained, and the entire faculty of the town was present. The body was considerably emaciated. The left side, over the region of the heart, was more prominent than the right. On opening the chest, adhe-



sions were extensively present in the left side. The pericardium was inflamed, containing six ounces of bloody serum. The endocardium, exhibited still more striking evidence of inflammatory action. Lymph was abundantly thrown out and found in and about the large vessels of the heart, the valves thickened, and other structures enlarged. The muscular structure of the organ in some portions blackened and nearly disorganized. A more marked case of morbid anatomy is rarely seen.

He who so long and stupidly treated this case, and had declared there was no disease of the heart, was also present at the examination. He was, however, opposed to the examination, and did what he could to arrest it, as he and his friends had assumed that the change which had taken place in his management a few days before death, was the cause of that unfortunate result. They were congratulating themselves on the old, but in this case mistaken, saying, "that the dead tell no tales." And why did he shrink from this investigation which was to reveal the truth and facts of a case with which he had been so long conversant, if he did not begin to suspect that his gross ignorance and stupidity would see the light? The light they did see; and while the morbid structure of the heart was pointed out to him, he stood amazed and confounded. He must have seen with what recklessness he had trifled with the high and dearest interests of humanity, and if he had any moral feeling left must have passed on himself a severe and terrible condemnation. Will this solemn opportunity be lost upon him? Most undoubtedly it will, for what can be hoped from one whose whole system is founded in duplicity and fraud. But let him not complain if the veil is occasionally drawn aside and its fearful consequences exposed to the world.

## ARTICLE VII.

## COLLEGE DISPENSARY.

*Professor Fitch's Clinique.*

[Reported for the Journal.]

*January 13th 1847.* Mr. — presents himself this morning for treatment. We will examine his case. *Æt.* 35, has been sick since June last; pulse 110, small, and somewhat hard; has considerable thirst; very poor appetite; occasional nausea and vomiting. You perceive his tongue is loaded with a white crust in the centre, while the tip and edges are clear and red. Diarrhœa, with griping pains; sense of tightness and soreness across the abdomen, which is increased by eating and by exertion. His abdomen, you see, is very much tumefied; the tumor elastic, and apparently tympanitic. Has pain across the loins; pricking pains in various parts of the abdomen, and you can readily detect tenderness upon pressure over nearly every part of it. Abdominal pains increased at irregular intervals, without any assignable cause for such increase. A glance at the man shows you that the growth of other parts of his body has been apparently in an inverse ratio with that of his abdomen. His features are sharp and sallow; his extremities emaciated, and the skin upon them flabby. Passes but little and highly coloured urine; is able, and has been most of the time, to walk about and attend to light business, but feels "very weak," and is easily fatigued. I can discover no enlargement of either liver or spleen, though, if the general abdominal tumefaction was less, such enlargements might very probably be detected.

Our diagnosis here must be *Chronic Peritonitis*. We have in his present symptoms, no clue to the cause, though the disease probably had its origin in intermittent fever, of which the patient informs us he had repeated attacks in the autumn of 1845 and the succeeding winter.

The *chronic* occasionally follows *acute* inflammation of the same membrane. More usually, however, it is a primary



form of the disease, attended by the *acute*. Insidious in its commencement, and gradual in its progress, it has often so far advanced as to be incurable before its detection. This fact should make you rigid in your examination into cases presenting any of its symptoms; and you must by no means expect always to find them so well marked as in the ease before you. The inflammation may, in its origin, be confined to a limited extent of the membrane; perhaps to that portion of it covering a viscus, as the liver or spleen, and probably accompanied with symptoms which only afford data for assumption, positive or negative, of a co-existent affection of the parenchymatous structure of the subjacent organ. When such affections exist, if it be other than functional, a greater feeling of resistance, fullness, and hardness to the touch, is ordinarily apparent than in the peritoneal inflammation. You will, it is true, find the same hardness, &c., present if the inflammation be of the glandular substance without implication of the covering membrane. But such cases are rare, and when they occur there is not the same degree of soreness—at least the soreness appears deeper seated, requiring greater pressure for its detection, and the pulse is neither so small or rapid. Although the origin of this form of peritoneal inflammation may be thus limited, it rarely remains so through its subsequent stages. On the contrary, if undisturbed and unchecked by appropriate treatment, it continues spreading until it proves fatal by its extent, by some of its terminations, or by interruption or perversion of function which it produces in parts with which it is in immediate relation.

In scrofulous habits, especially in children, you will frequently find that formidable group of symptoms denominated *marasmus*, indicative of an affection of the mesenteric glands, supervening upon this inflammation. The result occasionally attains in the adult. I have seen the intestinal convolutions firmly adherent, so matted together, as to be imperceptible until separated by the knife.

For what disease could the case before us be mistaken? Perhaps most easily for ascites, and the more especially as effusion of serum into the cavity of the abdomen is a frequent consequence of this form of peritonitis. The febrile

symptoms found here are common to both, as is the enlargement of the abdomen. In the former, however, you will detect a change of the most prominent part of the enlargement from side to side with the patient's change of position, and fluctuation is distinguishable upon percussion. Here the enlargement is uniform in every position; there is no fluctuation, but the elastic feel and semi-sonorousness of tympanitis. Œdema of the lower extremities is usually present with the former, rarely so with the latter. It might be supposed that diagnosticating the two conditions could not be a matter of very great moment from the fact already mentioned, viz.: ascites being a frequent result of the inflammation. Such a supposition, if practically acted upon would be attended with mischievous consequences. An alternative treatment may be required for ascites, or the removal of its cause. This treatment is the most efficacious for peritoneal inflammation. So far as its adoption is concerned then both cases would be benefitted. We, however, frequently endeavor to remove effused serum, to promote its absorption, and thus relieve the patient of the urgent symptoms dependent upon its quantity, by the administration of hydragogue cathartics. Such treatment would greatly aggravate peritonitis, if it did not ensure a fatal termination; therefore, when we resort to it for removal of serous effusion, consequent upon this disease, we treat for a symptom at the expense of an aggravation of its cause, and can only justify ourselves for so doing by the urgency of the case, and by immediately following it with the adoption of an appropriate radical treatment. Mistaking the case before us for hepatitis, splenitis, or for inflammation of the stomach or intestines, from the tenderness and pain in their respective regions, would be a far less grave error. The parenchyma of the liver or spleen, or the mucous or muscular tissue of the stomach or intestines, may have been the primary seat of the inflammation, but the symptoms now present could not have ensued without its extension to the peritoneum. The treatment anterior and subsequent to such extension would be so nearly identical as to leave but little specially applicable to disease of one or the other tissue. The scant and highly colored urine, with the persistent severe pain across the



loins by first fixing the attention of a careless or inattentive observer, might lead to a mistake of the case for one of renal disease. Such mistake could the more readily be made, as the stomach almost uniformly sympathises with diseased kidneys, as shown by the nausea and vomiting; and still farther to increase the liability to such mistake, we find nephralgia often accompanied with an acutely severe pain of the abdomen, midway between the ileum and umbilicus and greatly increased by pressure. If nephralgia was the supposed disease, cathartics and opium would be resorted to, and to an extent which could not fail to be injurious here. If nephritis was imagined to exist, as the treatment would be antiphlogistic, it may be thought the error would not be so important. If you reflect, however, a moment upon the remedies withheld in nephritis, you will perceive that many of them are among the most important in the case before us, as blisters, saline laxatives, and terebinthines.

A blister will be directed to the patient's epigastrium, to be dressed with ung. hydrarg.; free pustulation with tart. emetic ointment, to be induced over the rest of his abdomen. A powder of—

R.—Proto-chloride Hydrarg., gr. iij;  
Nitrate Potass., gr. v;  
Pulv. Doveri, gr. vi;

to be taken twice daily until the next report.

*February 4th.*—You will probably recognise Mr. — as the case of chronic peritonitis before you on the 13th Jan. This is the third report. He has, for two weeks past, been kept mildly but decidedly under mercurial influence. He now tells you his appetite is good, thirst gone, as are the pains and tenderness of the abdomen with which he was formerly tormented. Free pustulation has been kept up over the abdomen, the enlargement of which has mostly disappeared. Pulse 90 and soft. His diarrhoea has been checked, but his bowels yet evince some tendency to laxness. He will now be directed to discontinue the counter irritant, and dress the pustules with simple cerate. The mercurial he was told to discontinue a week since. Bals. copaiva m 20 twice daily will be sufficient to control the

remaining evidences of diarrhœa, and perfect the cure. With this he will accordingly be discharged.

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## ARTICLE VIII.

*Letter in Reference to the use of Sulphuric Ether, &c.* From  
G. W. CLIPPINGER, M. D., of Terre Haute, Indiana.

PROFESSOR EVANS:

*Dear Sir:*—Soon after my return, an opportunity presented for an experiment with the sulph. ether. Having failed to procure the rectified, I used the ordinary article of the shops; supposing the only difference in the two articles would be, in the latter requiring a longer period for its effects to be experienced. In this particular there was no disappointment. After inhaling the ether some five minutes, a sensation of numbness was complained of, which, in the course of a few minutes more, was succeeded by a state of complete insensibility. This condition continued five minutes, during which time no perceptible change in the pulse was detected; the respiration was easy and natural, the subject exhibiting the appearance of a person in a profound sleep. No evidence of pain from the prick of a lancet or pinching could be noticed. The arm, when elevated, would drop the instant let go; the mouth opened, would remain so until closed; the pupil of the eye remained unaltered—was neither dilated nor contracted. At the expiration of five minutes, this state of insensibility was succeeded by that of delirious excitement. The subject of experiment having combativeness well developed, you can readily guess he kept me employed for some minutes—perhaps fifteen—during which time he was thrown upon the bed, and held until the effects entirely passed off, leaving a sense of depression with some headache. I have exhibited the same preparation of sulph. ether in two cases since; in both the effects were similar to those described, excepting the length of time the subsequent excite-



ment lasted—which, in one of the last two experiments continued an hour and a half. Dr. Hitchcock was present during one of the experiments, and although desirous of obtaining the first effect of the ether in an operation he wishes to perform, he declines doing so on account of the fears entertained of the latter. In your experiments, has the subsequent excitement been present to an unpleasant degree? Or have you ever used the ordinary sulph. ether of the shops in an experiment? If a convenient opportunity presents, please send me some of the preparation of ether used by yourself; as I am desirous to test its effects to my entire satisfaction.

*A Somewhat Novel Case* came under my observation some two weeks since. The patient was a widower, aged about forty. He addressed me as I was walking by, and said he believed he had made an eunuch of himself. He was requested to return home, where I shortly after saw him, and to my surprise, after undoing various old cloths from about the scrotum, one testicle hung suspended by the cord on its anterior and inferior surface, entirely exposed, covered with dirt, considerably tumefied, and very tender. After removing as much of the dirt as was practicable, with much difficulty the testicle was returned, and the wound closed by aid of sutures and adhesive plaster. Notwithstanding the testicle had been thus exposed two hours, suspended by the cord, covered by dirt, somewhat tumefied, and the patient having walked a mile with it in that condition, the wound was entirely cicatrized in three days, and the patient resumed his employment. The patient could give no satisfactory account of how the wound had been received, and only said it was done with a razor.

*May 5th, 1847.*

[I have given the ether in a great number of cases, but have, fortunately, not met with a single instance in which the excitement was manifested during the subsidence of its narcotic effects. Several cases of the kind have been reported, but they are quite few in comparison to the great number in which no such effects have followed. I have used the rectified generally; but once got an article that was so diluted as to be of no use.

The ether should be rectified, to remove impurities that might have a deleterious influence ; but I know of no impurity that would cause it to have the effect above referred to. E.]

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## ARTICLE IX.

*A Request.*

*Messrs. Editors:*—I wish to ask Dr. Henry, of Pekin, for a “Philosophical Theory” which shall sustain his practice of using opium in “fevers and inflammations.” He has promised it if asked for through the Journal. It would add to the interest of the reply if a few cases were given of disease thus treated in which the effects of such doses were accurately noted.

A SUBSCRIBER.



## PART II.—REVIEWS.

## ARTICLE X.

*Lectures on Subjects connected with Clinical Medicine, comprising Diseases of the Heart.* By P. M. LATHAM, M. D., Fellow of the Royal College of Physicians, Physician Extraordinary to the Queen, and late Physician to St. Bartholomew's Hospital. Philad.: Ed. Barrington and Geo. D. Haswell. 1847. Being the October No., 1846, of the Select Medical Library. 8vo. pp. 365.

This work comprises thirty-eight lectures, and is replete with correct observation, clear illustrations of the pathology, and sound advice in reference to the treatment of the diseases of the heart.

That the object and plan of the work may be understood, we make the following extract from the author's preface :

"Mine is a limited purpose. It is to regard the diseases of the heart only in one point of view, *i. e.* as they appear in the living man. But this one point of view includes the several objects of their clinical diagnosis, and their medical treatment. These are what I seek especially to illustrate, while I presume an acquaintance with other parts of the subject, and shall only allude to them incidentally as I go along.

"The other parts of the subject, indeed, include no less than all that belongs to the morbid anatomy of the heart, the productions and processes which variously alter, or injure or destroy its organic structure. These are the very things of which clinical observation seeks to know the living signs, and the living history, and the treatment, both curative and palliative. But these, it is no part of clinical instruction formally to explain; yet, unless there be some previous knowledge of them, clinical experience cannot safely proceed; and unless that knowledge be kept up and improved concurrently with it, clinical experience can never go on to perfection.

"The clinical diagnosis of diseases of the heart owes all the higher degrees of certainty to which it has been carried in our own times, entirely to auscultatory signs. Accordingly it became necessary for me to give some account of their theory and their uses, and I have desired to do it as

simply as possible. Their perfect theory, however, lies deeper than our present knowledge, and all the uses of which they are capable must wait to be developed by more and more multiplied observations of the sick.

“But already there is some true light in which these signs may be regarded; and already there is a large extent to which they may be followed and trusted as the faithful exponents of diseases of the heart. And although on this subject doubtless there has been error and mistake, and a good deal has been taken for more certain, and something for less certain, than it really is, so that we have both to learn and to unlearn; yet enough is already known to make the diagnosis of diseases of the heart hardly anything else than a just appreciation of their auscultatory signs.

“After I have described the auscultatory signs, and endeavored to show what they are, both in themselves and in relation to other symptoms, and what is their value as guides both to diagnosis and treatment, I may perhaps seem unreasonably to cut short the further description of the heart’s diseases.

“But as I lectured, so now I write, for one class of students especially. As my hearers were, so now I presume my readers will be, chiefly those who are seeking information at the bed-side. To such there is no greater impediment of knowledge than over-teaching. The teaching which they most require is suggestive. They have the realities themselves to learn from, the original *book* to read, upon which all sound instruction is but a commentary. Therefore, the commentator should only interpose when and where he is needed, and not, after the manner of certain critics, who most *help* us with their annotations where the sense of the author is clear beyond dispute.”

Lecture first treats of “the natural sounds, impulses, and resonances of the heart.—How their variations of degree and extent become evidences of the heart’s disease or unsoundness.”

That we may be able to enter upon a consideration of the subject understandingly, we make the following extracts from this lecture :

“Now it is evident that our inquiry must begin with the natural and healthy sounds and impulses of the heart. These are the standard of comparison, by which alone we can judge of the unnatural and morbid.

“First, then, of its sounds. And here, for the sake of avoiding confusion, let me just remark the distinction be-



tween the sounds which reach the ear simply by listening, and those which reach it by help of percussion. Though the ear judges of both, yet are they totally different in the modes of their production. *We* produce the latter, and the ear is made perceptive of them only by our knocking. The heart contributes nothing but as an inert mass; and what it contributes *as such* is found equally in the dead and in the living. It is the sounds which the heart brings out of itself, by its own vital movements, that I wish now to consider. The sounds which we bring out of the heart by our percussion I will consider hereafter: for they too carry with them notices of health and of disease, which are neither few nor unimportant.

“The sounds which naturally accompany the movements of the healthy heart, can only be learnt by the practice of listening to them. It is useless to describe them. They are simple perceptions of sense, which no words can make plainer than they are when the ear has once become familiar with them. It is the same with all common sounds. By describing them you seek to make them known in a different way from that in which they are naturally known. Who ever thought of describing the sound of the wind or the rain except for poetical purposes? I must leave you then to be your own self-instructors in the healthy sounds of the heart, and recommend you to be constantly practising auscultation for the purpose on healthy subjects.

“But, besides the fact, that sounds of a certain kind accompany the actions of the heart, which each man must listen for and so learn for himself, there is the theory of the fact, or the explanation how these sounds arise. This surely cannot be learnt by merely listening. The fact that it rains or blows, we may take upon ourselves to decide without the philosophers, because we hear it. But, if we would know how it comes to do either one or the other, if we would understand the theory of winds and showers, we must inquire a little further, and betake ourselves for instruction to those who have examined into such matters.

“In listening at the præcordial region, the ear at once perceives two sounds proceeding from the heart—the one duller and more prolonged, the other clearer and shorter; the one coinciding with the systole of the ventricles and the pulsations of the arteries, the other coinciding with the diastole of the ventricles and the rest of the arteries. Hence it appears that for one pulsation of the arteries there are two sounds of the heart.

“But between the two sounds of the heart there is hardly an appreciable interval. The duller sound, which goes for the first, seems to end with a snap, which goes for the

second; and then succeeds an interval of repose, which is appreciable enough, before the duller sound returns.

"The time thus occupied by the sounds of the heart in their succession and their pause, has been divided and accounted for after this manner:—one half is filled up by the first sound, one quarter by the second, and one quarter by the pause."

These observations show how important it is to practice auscultation before anything can be relied upon in reference to the sounds of the heart by the pathologist.

After speaking of the sounds, resonances, and impulses of the heart in health, the author briefly states the variations from them in disease as follows:

"A clearer sound proceeds from a thin heart, and a duller sound from a thick heart; a sound of greater extent from a large heart, and a sound of less extent from a small heart. A more forcible impulse is given by a thick heart, and a feebler impulse by a thin one; the impulse is conveyed to a longer distance from a large heart, and to a shorter distance from a small heart.

"All this is surely plain enough, and it is undeniably true. Nevertheless, from its sounds *taken alone* and from its impulse *taken alone* we could come to few trustworthy conclusions respecting the structural condition of the heart. And why? Because its sounds and its impulses are capable of being augmented or lessened, both in degree and in extent, by causes extrinsic to the heart. This has been expressly stated already: and these extrinsic causes have oftentimes a power over its sounds and impulses as great as any which the heart itself derives from diseases of its own. This will be abundantly shown hereafter.

"But, happily, sounds and impulses are the interpreters of each other. The true meaning of the sound is tested by the impulse, and the true meaning of the impulse is tested by the sound.

"Thus, from a clearer sound, we argue only the probability of an attenuated heart; but we argue its certainty from a clearer sound joined with a weaker impulse. From a stronger impulse we argue only the probability of an hypertrophied heart; but we argue its certainty from a stronger impulse joined with a diminished sound.

"When impulse and sound increase together, there is probably no hypertrophy, but the heart is only acting more forcibly from pure excess of nervous energy. When impulse and sound decrease together, there is probably no atrophy,



but the heart is only acting more feebly from pure defect of nervous energy.

“When the sounds and the impulse of the heart are both perceived beyond the præcordial region, they give notice, (generally speaking,) of dilatation of one or other of the ventricles. If, under these circumstances, sound predominate over impulse, then, with dilatation, there is either attenuation, or somewhat less than a proportionate increase of its muscular substance. If impulse predominate over sound, with dilatation there is either hypertrophy or somewhat more than a proportionate increase of its muscular substance.”

Lecture second treats of *murmurs*, which are of equal importance with any of the symptoms emanating from the heart, as pathognomonic of its diseased conditions. All the unnatural sounds are termed murmurs; and are divided into the endocardial and exocardial:

“The endocardial murmur is not only different in kind from the natural sounds of the heart, but it takes their place and is heard in their stead. It comes exactly where the first sound, or where the second, or where both sounds should be. It keeps strict time with the systole or with the diastole of the heart, or with both.

“The exocardial murmur, too, is different in kind from the natural sounds of the heart. But it does not take the place of them. It is not heard in their stead. In proportion as it is louder, it obscures or overpowers the natural sounds. But the natural sounds are still apt to reach the ear through the exocardial murmur; and, when they do not reach the ear, it is because they are imperceptible under the circumstances, not because they cease to exist.

“It would be time and trouble thrown away to dwell long upon these endocardial and exocardial murmurs, with a view of describing what they are in themselves, and in contrast with each other. For after all every man must learn them for himself by the teaching of his own ear. Touching, however, our mere perception of them as sounds, there are a few circumstances interesting enough to mention which may chance to help the ear to a readier acquaintance with them.

“Whenever we hear any unusual sound either for the sake, of conveying our notion of what it is to another, or often, for the sake of being sure that we have a right notion of it ourselves, we are to set about imitating it. Now, any man hearing the endocardial murmur for the first time, as it occurs in the great majority of cases, would be almost sure to try

and imitate with his *mouth*, and, what with whistling and blowing, he would presently hit upon something so very like it, as to make him pleased with his own cleverness. But hearing the exocardial murmur, such as it is in the majority of cases, for the first time, he would never think of imitating it with his mouth; he would rub his hands together or the cuffs of his coat, or take up any two things within his reach—two pieces of thick paper, perhaps—and rub them together and, what with brushing, and rustling, and crumpling, he would presently bring out a very near counterfeit of the exocardial murmur.

“But these murmurs are to be caught quickly and distinguished surely, and turned to a ready use, only by practice. Yet it gives a previous confidence in the reality of a distinction between them, to know that the endocardial murmur conveys to all ears the idea of blowing, and the exocardial murmur the idea of two bodies moving in contact with each other.

“It may be further stated among their general characteristics, that the endocardial murmur is most frequently a single sound, being coincident either with the systole or diastole of the heart; yet that sometimes it is a double sound, being coincident with both; but that the exocardial murmur is rarely less than a double sound. Moreover, that the endocardial murmur is commonly more inward and deeper, and further from the ear, and the exocardial murmur more outward and nearer to the surface, and closer to the ear.”

In reference to distinguishing the valves of the heart that are diseased, by the position and direction of the endocardial murmur, he says:

\* \* \* “The first fact is, that endocardial murmurs are most plainly audible at that part of the præcordial region which is nearest to the orifice from which they proceed. The second fact is, that endocardial murmurs are conveyed sometimes in one direction and sometimes in another, and that the orifice from which they proceed determines in each particular case what the direction shall be.

“Of these two general facts, I am more sure of the second than of the first, and have better proofs of its practical use. But we will briefly consider them both.

“A line drawn from the inferior margins of the third ribs across the sternum, passes through the pulmonic valves a little to the left of the mesial line and those of the aorta lie behind them, but about a half an inch lower down.”\*

\* Hope on Diseases of the Heart, p. 3.



“A horizontal line drawn through (along?) the under edge of the sterno-costal articulations of the fourth ribs will cut across nearly the middle of the length of the mitral valve, when drawn outwards and downwards by its tendinous chords and columnæ carnae, and pass about two or three lines above that portion of the tricuspid which most nearly approaches it, the latter valve lying underneath the sternum, and the former immediately to its left.”\*

“So much of the sternum as these lines include to the left of the mesial line, and the space they indicate between the lower margin of the third and the lower margin of the fourth sterno-costal cartilages on the left side, may be taken to mark that portion of the præcordial region, behind which lie all the orifices of the heart, and a good share of the valvular structures appertaining to them. Now, inasmuch as the several orifices are found at the basis of their respective valves, the pulmonary and aortic orifices must be lower than the first horizontal line, and the tricuspid and mitral orifices must be higher than the second. How nearly, then, must they all approach one another in the mid-space between them both! So nearly that the mouth of an ordinary-sized stethoscope would surely cover them all within the circle of an inch and a half or less. Whichever orifice of the heart be affected, we are sure to find the endocardial murmur here or hereabout. And listening here and here only, we cannot segregate the murmur of one orifice from that of another. What then, if ‘endocardial murmurs *are* most plainly audible in that part of the præcordial region which is nearest to the orifice from which they proceed!’ This general fact, taken alone, cannot help us much in determining which of them is affected in a particular case, when they all lie clustered together at the same, or nearly at the same, part of the præcordial region.

“But suppose we raise our ear or the stethoscope from this exact spot, and shift it an inch or two higher or an inch or two lower. Higher we may hear the endocardial murmur still, and lower we may lose it altogether. Or higher we may lose it altogether, and lower we may hear it still. Or both higher and lower we may still distinctly hear it. By this procedure we are following the endocardial murmur in the direction it takes after it leaves the orifice from which it is propagated, and we find how various the direction is, upwards in one case, downwards in another, and both upwards and downwards in a third. But still it is the orifice from which it is propagated, that gives the murmur its particular direction; and this, it is said, may be taken for a general fact.”

\* Joy, in *Library of Medicine*, vol. iii., p. 258, in a note.

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“Among the conditions which may possibly intervene to turn endocardial murmurs from the direction in which the disease of particular valves would tend to convey them, the following may be mentioned:—

“1st. The presence within the chest, and exterior to the heart, of substances having a more solid consistence than its natural contents, such as morbid growths of various kinds, or aneurismal tumors, or condensed portions of lung. These are able to conduct the abnormal murmurs, no less than the natural sounds of the heart, to a greater distance, and in any direction, according to the place they occupy.

“2dly. The enlarged capacity of the heart itself, which is the most frequent consequence and concomitant of its diseased valves. The large dilated heart spreads its sounds abroad laterally. And thus, whether the murmur be traced in the course of the aorta, or not at all above the basis of the heart, it is often as loudly audible from mamma to mamma, and everywhere below the fourth ribs, as in the præcordial region itself; and often even far round towards the left axilla.

“3dly. The mere loudness of the endocardial murmur. The abnormal murmurs, as well as the natural sounds of the heart, are heard to a greater distance in proportion to their mere loudness, and that not only in the directions to which the current of the blood conducts them, but in all directions.”

The subject is continued in lecture third, and the circumstances liable to interfere with or obscure the endocardial murmurs, as deformed chest, external pressure, murmur of respiration, especially in diseased conditions of the lungs, and from impoverished blood, are discussed.

The exocardial murmurs depend upon the friction between the surfaces of the heart and the pericardium when deprived of their natural smoothness by depositions from diseased action.

Lectures five, six, seven and eight, treat of inflammations of the heart under the heads of endocarditis and pericarditis:

“Endocarditis is at present chiefly known as a concomitant of acute rheumatism.

“In the year 1826 I was the first to teach the students of this hospital the fact that whenever the heart was affected in acute rheumatism, a sound different from the sound of health always accompanied its contraction. This was then a new fact, and one of immense importance; and all suc-



ceeding observation has gone to confirm its truth. This sound, in the vast majority of instances, was the bellows murmur. But in some, instead of the bellows murmur, it was some strange sound difficult to describe; and in others this strange indescribable sound and the bellows murmur seemed to occur together: there was a mixture of both.

“My notion *then* was, that all these sounds arose in some way or other out of inflammation of the pericardium; and taking them all severally and in combination, as the signs of pericarditis, I was amazed to find how far the frequency of its occurrence in acute rheumatism exceeded the common calculation and belief.

“In process of time I found, upon a comparison of cases, that where, in acute rheumatism, the bellows murmur occurred *alone*, the affection of the heart was upon the whole far less severe and far less perilous to life, than where some other unnatural sound occurred alone or in combination with it. I observed, too, that in some cases where the bellows murmur was unequivocal, the patient betrayed no uneasiness, no palpitation, in short, no other symptom which could give the least suspicion of a diseased heart; yet that in the great majority of instances where it once existed it remained permanent as long as the patient continued under my care and observation.

“At length I began to doubt whether the bellows murmur arising in the course of acute rheumatism was really derived from the pericardium, and to suspect that it proceeded from the internal lining. But for years the practice of this great hospital did not afford me a single opportunity of resolving my doubt, or of confirming my conjecture. For of that disease of the heart, which, coming on during acute rheumatism, is characterised by the bellows murmur, no patient of mine ever died, and I could learn nothing about it from dissection. But what my own experience would not furnish, M. Bouillaud’s has supplied. Many have died during the active progress of this disease under his care, and dissection has found it to be inflammation of the endocardium. Thus we are indebted to M. Bouillaud for our first knowledge of this important fact.

“Nearly about the same time Dr. Watson and Dr. Stokes, of Dublin, further illustrated this important subject by separating *those other* sounds of the heart, which I have mentioned, to occur in acute rheumatism, from the bellows murmur, and analysing them apart. These they found to possess the character of attrition, as if produced by surfaces moving to and fro upon each other, and traced them home to their local origin in the pericardium, and showed the condition of their production to be a defective lubricity, or a ruggedness and

unevenness of that membrane, such as would result from inflammation. In short, they showed these to be the proper signs of pericarditis, as the bellows murmur is of endocarditis; that when in acute rheumatism either occur alone (as it often does), the disease is simple pericarditis or simple endocarditis; and that when in acute rheumatism both occur together (as they often do), there is a mixture of the two diseases in the same subject.

"The bellows murmur coming on in the course of acute rheumatism is a sure sign of inflammation of the endocardium. Here, then, we will drop this exceedingly vulgar name, and call it "endocardial" again. But observe, it is the general character of the morbid actions predominant in the system at large which determines the particular character of the local disease out of which the endocardial murmur arises. *They* are inflammatory, and *it* is inflammation.

"In endocarditis, besides the endocardial murmur, there may be other symptoms present, directly referrible to the heart or there may not. There may or may not be pain. There may or may not be an excessive impulse, or an intermittent, irregular, or fluttering action of the heart. But the fact of endocarditis is not rendered more or less certain by their presence or absence.

"There may be doth pain and palpitation; yet endocarditis cannot be surely inferred to exist, unless there be the endocardial murmur withal.\* There may be neither pain nor palpitation, yet endocarditis cannot be inferred to exist, if the endocardial murmur alone be present.

"Seeing, then, that the endocardial murmur alone can determine the existence of endocarditis, you are required to search after it in every case of acute rheumatism. I say emphatically to *search after it*, because it is one of those signs which must always be sought before it can be found. It does not intrude itself upon our notice like palpitation or an irregular pulse. The patient does not draw our attention to it as he does to pain. The physician must make it out entirely for himself. And, indeed, it is infinitely important that he should have the earliest possible notice of it, with a view to the earliest possible application of the remedy.

"Never omit, therefore, to listen to the præcordial region whenever you visit a case of acute rheumatism, and visit a case of acute rheumatism oftener perhaps than you otherwise would do merely for the sake of listening. All may seem to be going on well. The general symptoms may be far from severe. The chest may be free from pain. The

\* I do not say that it would not be fairly suspected, and that it would not be right to act as decidedly upon the suspicion in such a case as upon the matter of fact. It certainly would.



heart's action may not awaken suspicion by its force or irregularity. Nevertheless, its internal lining may be inflamed, and if you listen, the endocardial murmur may convey the momentous fact directly to your ear."

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"Now in pericarditis there are the fluid products of inflammation as well as the solid. There is serum as well as lymph. And the signs of fluid effused within the pleura and the pericardium are the same. The fact of its existence, and the measure of its accumulation within the pericardium can only be known by the degree and extent to which the præcordial region, and perhaps some space beyond it, may be dull to percussion. Thus, in pericarditis, dulness sometimes occupies a part and sometimes the whole of the præcordial region; as high as the second, and even the first left rib; sometimes it extends beneath the whole length of the sternum, except about an inch at the top, and even beneath the cartilage of the ribs on the right side.

"Surely, then, this dulness to percussion is a most important sign, and hardly inferior to, and hardly less diagnostic of, the pathological conditions to which it points, than the exocardial murmur itself.

"But do these two, viz., the murmur and the dulness, bear the same relation to each other as signs of disease within the pericardium, as they have been seen to bear as signs of disease within the pleura? In pleurisy the attrition-sound and the dulness are never coincident, but are always found to supersede each other, one ceasing as soon as the other arises. Is this the case in pericarditis? My own experience would answer almost absolutely 'No!' As soon as I have discovered the exocardial murmur at any part of the præcordial region, so soon have I almost always found dulness to percussion. And, to whatever extent the dulness to percussion has spread beyond the præcordial region, the murmur has accompanied it, even as high as the first left rib, and beneath the sternum, and far beyond it, even to the juncture of the cartilages with the right ribs. Further, I have known dulness of the præcordial region to be the *first* sign, and to subsist several days alone, and yet the attrition sound has been superadded to it, when they have thenceforth continued together. In pericarditis, then, this I take to be the general truth, namely, that the murmur, which is produced by lymph deposited upon the surfaces of the membrane, is neither abated, nor abolished, nor otherwise altered in its character by the serum effused within its cavity. It is not, however, the *universal* truth."

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"But of all symptoms, mere pain is the most inconstant

and uncertain, whatever be the disease. It is so in pericarditis. It is present in one case and absent in another, strangely and unaccountably. I have known much pain, when the disease has been of little severity, of short duration and of easy cure: and I have known the severest pericarditis pass through all its stages without pain. All other symptoms have been present to mark its reality and its progress: the murmur and the præcordial dulness; and the fluttering heart, and the respiratory anguish. And sometimes the patient has died, and sometimes he has escaped by a tardy and precarious convalescence. But from first to last there has absolutely been no pain.

“Do not be surprised at this. Pleurisy may exist without pain; even acute, rapid, pus-effusing peritonitis. And so too, if in pericarditis there is sometimes no pain, it fortunately happens that there are other signs by which we can fix our diagnosis of the disease equally well without it.

“See what a strange, unequal and uncertain light pain is found to throw upon diagnosis and treatment! We find it where we do not look for it, and look for it where we do not find it. Its presence is no sure proof, its absence is no sure negation of disease.

“But still pain is a most important symptom. Where there is pain, we should always think of disease, always search after disease, and always require strong circumstances to convince us that disease does not exist. Where there is no pain in a part suspected of disease, we should never on that account conclude it to be healthy, and never be content until we find other circumstances to convince us that it is really so.”

Lecture eight is devoted to statistical accounts of the frequency of disease of the heart in acute rheumatism, and of the results of treatment, &c., in St. Bartholomew's Hospital.

“Between the years 1836 and 1840, both inclusive, there occurred under my care at St. Bartholomew's Hospital 136 cases of acute rheumatism.

“Of these 136 patients, 75 were males and 61 were females; of the 75 males the heart was affected in 47, and unaffected in 28.

“Of the 47, the seat of disease was the endocardium alone in 30; the pericardium alone in 3; and both the endocardium and pericardium in 7. And, while the heart was undoubtedly affected in seven others, the exact seat of its disease was uncertain.



“Of the whole number of males in whom the heart was thus variously affected, 3 died. And in these 3, the pericardium and the endocardium were both inflamed.

“Of the 61 females, the heart was affected in 43, and unaffected in 18.

“Of the 43, the seat of disease was the endocardium alone in 33; the pericardium alone in 4; and both endocardium and pericardium in 4; and the exact seat of the cardiac disease was doubtful in 2.

“Of the whole number of females in whom the heart was thus variously affected, none died.

“The account of males and females, taken together, will stand thus :—

Cases of acute rheumatism	-	-	136
Heart exempt in	-	-	46
Heart affected in	-	-	90
Seat of disease in the heart—			
Endocardium alone in	-	-	63
Pericardium alone in	-	-	7
Endocardium and pericardium in	-	-	11
Doubtful in	-	-	9
Deaths	-	-	3;

in all of whom both endocardium and pericardium were affected.

“Here are momentous facts, which go, I suspect, a good deal beyond the ordinary notions entertained by medical men of this matter. It is believed that among the sufferers of acute rheumatism, an individual now and then unluckily has his heart inflamed. The thing is looked upon as an accident which, if not very rare, yet is not very common. But it appears, from the event, not of a dozen or twenty cases merely, but of a number large enough to furnish the measure of what naturally belongs to the disease, that as many as two-thirds of those who have acute rheumatism also suffer inflammation of the heart.”

Our limits will not allow us to make more copious extracts on these subjects, and we pass to “the treatment of acute rheumatism considered preparatory to the treatment of its accompaniments, endocarditis and pericarditis.”

“It has been said that, in the treatment of acute rheumatism, one trusts entirely to venesection and cures it, another to opium and cures it, and another to drastic purgatives and cures it. Here, among several indications which offer themselves to his choice, the physician takes a single one, and

makes it the sole mark and scope of his practice, trusting that, when he has effectually attained it, the complex actions and sufferings which constitute the disease will be brought to an end.

“ Thus, he takes the high vascular action of acute rheumatism and sees the whole disease represented in it, and is solely intent upon subduing it by venesection, expecting that as he pulls down the circulation, the fever, the nervous disquietude, and the pain, and the swelling, will all cease, and the various secreting organs of the body will resume their natural functions, and that thus the actions of health will gradually supersede the actions of disease. Or he takes the nervous disquietude and the pain of acute rheumatism as the representative of the entire disease, and deals with it accordingly, being solely intent upon moderating them with opium, and expecting that, as they subside, the high vascular action and the fever will subside along with them, and that the secretions will return to their healthy measure and kind. Or he takes the state of the several secretions, their deficient quantity, and their unhealthy quality, as the representative of the entire disease, and so addresses his treatment to those organs whose secretory functions are more immediately within the reach of medicine, the stomach and bowels and liver, and he gives large and repeated doses of calomel, and follows them with large and repeated doses of purgative medicine. This he does, and this is all that he does; and having done it effectually for a few days, and obtained very large and bilious evacuations, he expects that the fever, and high vascular action, and nervous disquietude, and pain and swelling will all cease, and the patient will be well.

“ Let me repeat my testimony to the success of this practice in acute rheumatism; the practice, namely, of choosing some single indication and steadily pursuing it to its fulfilment. It is a very rational practice. It is founded upon experience and it compasses its end by very simple means; and the manner of its successful operation may be well conceived, if it cannot be entirely explained, in the present state of our knowledge. Disease is a series of new and extraordinary actions. Each link in the series is essential to the integrity of the whole. Let one link be fairly broken, and the integrity is spoiled, and there is an end of the disease; and then the constitution is left to resume its old and accustomed actions, which are the actions of health.

“ But, you may ask, is the treatment of acute rheumatism really so plain and simple an affair in all cases? Is there nothing else to be done, but out of several purposes (or indications of treatment, as we call them) to choose judiciously some single one, and pursue it resolutely and effectually by



the simplest means? And is this the practice to which the cure of the disease may be safely trusted in all cases? Certainly not—certainly in a small proportion of them only.

“But it is not without reason that I have dwelt upon this practice of single indications and single remedies. For though capable of being strictly followed in a few cases only, it contains a principle of large application, which helps and furthers the treatment of all cases of this disease, and of many diseases besides.”

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“But there is a plan of treating acute rheumatism which is juster and safer, and applicable to more cases, and more successful than any of them. And that plan is a compound of all three.

“This compound method, while it works with all the means which have been recommended, stops short of what is harsh and excessive in their use, and yet compasses with more certainty the successful result.

“For I believe that, in the treatment of this disease, and in the same cases, by the judicious use of opium you may spare blood, and by the judicious use of bleeding you may spare opium; that by calomel and purgatives properly administered, you may make bleeding and opium less needful, and that by bleeding and opium discreetly employed you may leave the less to be effected by calomel and purgatives.

“Hitherto you have seen how, in the management of acute rheumatism, you may deal with blood-vessels, and with nerves, and with secreting organs, separately, and with what effect. Presently you will see how and with what effect you may deal with them simultaneously; and how your different remedies once set a-foot, and pursuing different paths, meet and end in one purpose—and that purpose the cure.

“‘As many arrows, loosed several ways,  
Fly to one mark.’”

The treatment of acute rheumatism is continued in lecture eleventh:

“In several cases, however, the proportion of the remedies to each other would vary. Sometimes more, sometimes less, blood-letting would be called for, and often none at all. So too, more or less opium, and more or less of calomel and aperients.

“I have remarked of the effect of blood-letting in acute rheumatism, that it belongs to it rather to render the disease more curable by other remedies than to cure it itself. Blood-letting, therefore, properly, takes the lead of other remedies in point of time. For if it be necessary, the whole treat-

ment must tarry, and other remedies come short of the good of which they are capable until, it is performed. On the first view, then, of the patient, the immediate question is—should he be bled? and if so, to what amount? This question it would be foolish and dangerous to pretend to settle anywhere but in the wards of the hospital, and with the very patient before you, and your finger upon his pulse. Well! and what then? Why! then if you judge there is more force of circulation than calomel and purgatives operating upon the bowels, aided by the soothing effects of opium upon the nervous system, will be able to abate, you may bleed.

“This is the best direction I can give. But be it the best and wisest that can be given, it must be utterly useless, nevertheless, except to those who are or shall be constantly busied about the sick. For, by this direction, whether to bleed or not to bleed is made to wait upon a judgment which must first be formed upon two points. And these two points nothing but the most constant bedside experience can make sure of. They are these—the exact force of the circulation in a particular instance, to be ascertained by the pulse; and the probable power of calomel, and purgatives, and opium to reduce it, to be estimated by the ordinary effects of the same remedies.

“I do not wish to exaggerate the difficulties of medical practice; neither do I wish to conceal them. I am sure you will never surmount them unless you first feel and acknowledge them. And some practical experience is needed even for this.

“When from the pulse I have considered venesection necessary to bring down the circulation, the loss of between twelve and sixteen ounces of blood has generally been enough to answer the purpose in view; and the venesection has seldom been repeated.

“The opium, and calomel, and purgatives I have been accustomed to give in combination thus:—With the calomel administered at night, according to its quantity, I have united more or less of opium. To ten grains of calomel I have added one grain of opium; or to five of calomel I have added half a grain, continuing to give them together in the same proportion, night after night, as long as they are needed. Then on each succeeding day, when a large purgation of the bowels has been duly obtained, I have still given the opium alone, or with saline draughts, in doses of half or one-third of a grain every five or six hours. And thus, with the large quantity at night, and the smaller quantities during the day, about two grains of opium have been commonly taken in the course of twenty-four hours.”



The variation in the treatment of the disease when it affects the heart, and the reasons for it, are clearly set forth in the following extract from lecture twelfth :

“ When the question is of the joints, it might be laid down as a maxim of practice, to treat the rheumatism (or the general disease) and let the joints take care of themselves. But when the question is of the heart, the maxim might be stated conversely ; to treat the heart, and let the rheumatism take care of itself. For inflammation of the heart, whether endocarditis or pericarditis, being the accompaniment of acute rheumatism, is to be managed by the same methods and remedies as would be, were it alone and idiopathic. And these methods and remedies are such as might not be employed at all, or certainly not to the same extent, in a rheumatism attended only by inflammation of the joints.

“ Now I admonish you that I am going to enter into bedside details. For I can teach you nothing unless I do, and you can learn nothing unless you attend to them. Blood-letting and mercury, and opium, are your remedies for these diseases of the heart. And so they are for acute rheumatism irrespective of inflammation of the heart. And so they are for twenty diseases besides. But little practical instruction is conveyed simply by announcing the fact. For in each of the twenty diseases, nay, in each case of any one of them, they may need to be employed in different modes and measures. Thus they are only *conditionally* curative after all. But is not this almost as much as can be said of the application of any remedy to any disease ? Conditions mix themselves with all medical practice. To know the disease and to know the right remedy, are only first steps towards the right treatment. The success, and even the safety of practice, come from knowing things which lie far beyond. Stop here, and you will soon find it much easier to kill a man with the *right* remedy than to cure him.

“ Bleeding, mercury, opium, the very remedies you used in acute rheumatism, are (I say) still your main reliance, when inflammation attacks the heart ; but bleeding in different modes and measures, mercury directed to a totally different purpose, and opium given with more than one single intention.

“ As soon as inflammation is known or suspected to have reached the heart, mercury must be given without delay. Or should mercury be already in use, as a remedy for acute rheumatism, with the intent of obtaining large evacuations from the bowels, it must at once have a new direction given to it. The irritation it has produced within the abdomen must by all means be pacified, and its constitutional impres-

sion must now alone be thought of—that impression, of which salivation is the best evidence, of which (as far as we know) it alone of all remedial substances, is properly and exclusively capable, and which, under favorable circumstances, is largely counteractive of inflammation.”

The next four lectures are devoted to the consideration of mercury as a remedy in rheumatic and other inflammations, and constitute rather too high an eulogy upon its powers. This remedy possesses great virtue in curing inflammatory affections in general, yet we do not subscribe to that free and almost universal application of it here recommended. And although the induction of ptyalism in the treatment of inflammations of the heart, iris, and some other important organs may properly be regarded as a *sine qua non*, still we should be extremely careful how we produce a disease often so destructive in its tendencies and, even in many inflammatory cases, of doubtful utility.

Lecture seventeenth treats of pericarditis independent of rheumatism. The following will be new to many of our readers:

“There is no structure of the body more liable to inflammation than the pericardium. Of those who have reached adult age and upwards, one half (it appears) have suffered pericarditis at some period of their existence. But then, in the vast majority of cases, it is neither detected, nor perhaps detectible, during life. It comes and goes unnoticed, and neither by itself while it remains, nor by its effects when it has ceased, does it do any amount of injury capable of interfering with the healthy actions of the heart. Hence, in five cases out of six there is no clinical history to be given of pericarditis. How and when, and under what circumstances it takes place in the living man, we have not the smallest experience. All our knowledge of it is from its effects which we discover in the corpse.”

It appears to have been shown by Mr. Paget that the white spots on the heart, so commonly observed in dissections, are sequelæ of inflammation. The following is the author's opinion of its importance:

“Doubtless it would be to our credit, that pericarditis in all its slighter degrees should come within our knowledge and



treatment. But, because this is not the case, mankind has suffered nothing. For such pericarditis is harmless from beginning to end. It puts life to no present peril, and does no ultimate injury by its effects. Those white spots and slender adhesions of the pericardium are often found where there is not a vestige of disease besides; and then the heart at the same time is so constantly found perfect in size, and form, and capacity, that they may be considered as things almost purely innocent."

In lecture eighteenth it is shown how, after the inflammation has subsided, the patient often sinks from a want of energy in the system to make reparations.

The next four lectures give a most interesting account of the permanent injuries of the heart consequent upon endocarditis and pericarditis, such as adhesions, thickening of the membranes, contractions, and valvular derangements; but as we cannot enter into details sufficiently to make it interesting without exceeding our limits, we pass this subject by.

After speaking of inflammation of the muscular substance of the heart, which is shown occasionally to take place in the acute form; sometimes going on to suppuration, but which is seldom detected until after death, our author dwells upon softening and fatty degenerations; the former of which from the following extract, would seem to be much more common than generally understood, and of great interest to the practitioner:

"I have been looking over M. Louis's admirable book upon fever, and find him laying great stress upon the intermitting and irregular pulse, attesting its formidable import, declaring how few who have it recover, and stating that he has found in almost all of those who have had it and have died, a softening of the heart's muscular structure.

Dr. Stokes, of Dublin, has lately been directing attention to the same morbid condition of the heart among the formidable contingencies of fever. And he had done so, with some novelty in his views of the thing itself, with a more precise notice of its diagnostic signs and (what is most important of all) with the discovery, that these contain indications which may be safely trusted to decide one of the most difficult points of practice in the management of fever. Dr. Stokes holds this softening of the heart to be a proper and special effect of fever, and its diagnostic signs to be the impulse of the ventricle becoming almost or altogether imper-

ceptible, and the systolic sound at the same time almost or altogether inaudible. And he considers that the impulse and the sound together being thus weakened or abolished, whatever in other respects be the patient's condition, call at once for stimulants as his only means of safety: and that his safety is insured as soon as a fairly perceptible impulse and a fairly audible sound are thus restored to the heart. The impulse and the sound thus ceasing and thus returning are, under the circumstances, diagnostic signs as nearly perfect as can well be conceived.

"But there are certain chronic constitutional diseases, in which the blood becomes corrupt in quality or in some essential constituent, in its red globules for instance, as in scurvy or chlorotic anæmia. A pulse deficient in power and intermitting is among the characteristics of such diseases, and when death takes place, the heart is found softened.

"I have something to say practically upon this subject of the softened heart which must be reserved for another place.

"That other condition of the heart, viz., the conversion of its muscular substance into fat, which acquires an importance from the serious results to which it leads, may be described in a few words.

"The healthy heart is always more or less marked upon its surface with streaks of white, and this appearance comes from the deposition of fat in the cellular texture which unites the serous covering with the subjacent muscular structure. It is found chiefly where the venæ cavæ unite to form the the right auricle; also at the base of the ventricles and along the line which marks the boundary between the two, and around the great blood-vessel as they emerge from the heart. But when fat is found in more than these situations and in more than the natural quantity, it is not so much added to the healthy substance of the heart as existing at its expense and detriment, and the muscular structure is that which especially suffers. The muscular fibre is sometimes pale and wasted like that of a paralytic limb.

"Now the predominance of fat in the heart, whether it be superadded to, or intermixed with, its muscular structure, may be said to constitute a form of unsoundness, partaking in some sort, of the character of disease; moreover, like other unsoundness from disease, it naturally leads to unsoundness from disorganization. The fat heart ends by becoming also a dilated and enfeebled heart."

The subject of hypertrophy, atrophy, dilatation, and contraction are next discussed under the general head of disorganizations of the heart.



These alterations are said to be results of former or present disease either of the heart itself or of some organ or organs intimately connected with it. In many cases they originate from acute rheumatism. Sometimes from disease of the arteries, lungs, liver, curvature of the spine, deformity of the chest, &c.

In reference to the treatment of hypertrophy he says :

“By most writers upon diseases of the heart I find its hypertrophy spoken of as curable. Its muscular substance, having acquired even a large increase of bulk, is considered capable of being again brought down to its normal size and normal force of action, by medical treatment. And of the remedies contributing to this result I find venesection represented as the chief. Now it would be unfair to mankind to abridge the hopes and efforts of medical men in all things possible for their benefit; and the cure of hypertrophy of the heart does not look like a thing which is in its nature impossible. But I must confess that, in the whole course of my experience, I never yet met with a single instance in which I was perfectly satisfied that it was cured. This negative experience of mine may not be worth much. Yet I have been a good deal in the way of such things; and it does appear rather strange that what others have seen so often I should never have seen at all. Therefore I may be pardoned for suspecting that physicians, affirming not the mere curability of hypertrophy, but its very frequent cure, were under some mistake.”

\* \* \* \* \*

“Impulse of the heart, taken alone, however great and however extensive it may be, is not a sure physical sign of hypertrophy. Hypertrophy, indeed, cannot exist without excess of impulse, but excess of impulse can exist without hypertrophy. When the impulse of the heart is excessive, and at the same time its sounds are obtuse, muffled and indistinct, and the præcordial region presents a larger space than natural which is dull to percussion, then the signs of hypertrophy are complete. And hypertrophy so sure and unquestionable was never cured within my experience. But when the impulse of the heart is in excess, and at the same time its sounds are as loud and clear as ever, or louder and clearer still, and the whole præcordial region is quite resonant to percussion save the small space which is naturally dull, then the signs of hypertrophy are incomplete. Yet if this be enough to constitute hypertrophy, I have seen and treated it successfully in a hundred instances. But in the

meantime I have not thought that I had to do with such affection, or ever claimed the least credit for curing it."

In reference to the treatment of atrophy our author gives even less encouragement:

"Atrophy of the heart, or attenuation of its muscular substance, is the form of disease which is naturally opposed to hypertrophy. Now of this atrophy, I doubt whether it can ever be made a distinct object *respective to cure*. I doubt whether the heart, having suffered such loss of substance from special disease of its own, can ever be made to recover it again by help of medicine.

"When, owing to defect of nourishment, from fever, or from disease in particular organs, or from accident, the whole becomes weak and attenuated, the heart may, perhaps, (I am not sure of the fact,) share the general disorder and become weak and attenuated also. And when the whole body, owing to better nourishment, becomes robust and lusty again, the heart may, perhaps, (I am not sure that it does,) recover its natural strength and substance.

"But all this, although it may originally spring from disease, yet, as far as the heart is concerned, has to do, not with disease, but with degrees of health. The full energies of health revive, and the heart is re-invigorated."

Dilatation is either produced by hypertrophy of the walls of the heart or by their attenuation from softening or atrophy, and of course the treatment is included under one of these heads. Hypertrophy and atrophy have been spoken of, and it remains but to treat of softening:

"Again, in fevers, when the skin is dusky, and the impulse and systolic sound of the heart both fail, and death is imminent and threatening, and yet under the seasonable use of wine and stimulants the skin brightens and the heart is again felt and heard, and with its returning impulse and sound all inauspicious symptoms are gradually cleared up and recovery is finally complete, then surely we cannot be wrong in believing, first, that the heart had been softened, and had afterwards recovered its natural texture and power, and secondly, that this recovery of its natural texture and power was mainly instrumental in saving life.

"This softening of the heart in fevers is no new fact. But the knowledge of the precise auscultatory signs which denote its softening, and of the precise auscultatory signs which denote recovery, this indeed is new knowledge, and



we owe it to Dr. Stokes, of Dublin. And further, the detection, in these same auscultatory signs, of one precise and plain *indication* to guide us in a most difficult point of medical practice, viz., the administration of stimulants in fever, this too is new, and this too we owe to the same sagacious physician. Whoever discovers a single new indication of treatment, which shall prove just, and true, and comprehensive, does a better service to mankind than if he found out twenty new remedies.

“From what I have seen I am convinced, that this softening of the heart, by corruption of the blood in fevers, is often a very rapid process, and never a very slow one. And I am also convinced that the recovery of the heart (when it does recover), by restitution of the blood, is often a very rapid process and never a very slow one. The blood is soon changed *from* its healthy state, and soon changed back again *to it*. The process seems more chemical than vital from its mere rapidity.

“Now, as to treatment, it should seem that whatever had power to restore its healthy quality to the blood would be the remedy most suitable to recover the heart from its softened condition; and theoretically one would look to chemistry for it. But chemistry has no such remedy to offer us; and so we are left to make the best of our mere experience, and to sustain the nervous system and the movements of the heart by simple stimulation, while nature transacts the business of reparation in her own way. Our remedies have no other purpose, and probably have no other effect, than to keep up a little life until the blood is able spontaneously to restore itself, and by consequence to restore the heart, and whatever other organs may have suffered the like detriment with it, to the conditions of health.

There is also a softening of the heart which belongs to certain diseases of a chronic kind characterized by an unhealthy state of the blood; such as scurvy and chlorotic anæmia. When people die of scurvy the muscular structure of various organs throughout the body is found loose and soddened, and without its natural cohesion, and of the heart among the rest. And when they die of chlorotic anæmia, internal parts are not only found as bloodless as the surface but also loose of texture. Such is the condition of muscles, and among the rest, of the heart.

“But recovery is infinitely the more frequent event of these diseases; even full and complete recovery, when it is impossible to doubt that the heart, and whatever other parts have suffered detriment, are restored to their natural integrity.

“Now in these cases the softened heart has no special remedy. Its treatment is merged in the treatment of the

scurvy or the anæmia. Cure the one by lemon juice and the other by steel, and you cannot help but cure the softened heart."

But softening of the heart, says the author, is generally secret in its beginning and course until, with a train of concomitant affections, it is manifested, and we cannot tell which preceded or followed:

"The patients are in the decline of life, or they have forestalled the season of old age by intemperate habits. Their nervous system may be shattered: their arteries may have undergone extensive changes of structure: their livers may be enlarged, their kidneys may be granulated. All of these forms of disease may be, and some of them are sure to be, conjoined with softening of the heart, before it comes to be known and to be treated.

"And, further, before it comes to be known and to be treated, the softening of the heart is already a part only of a complex disease in the organ itself. The very same tissue, the muscular tissue, has undergone other disorganization, besides softening. Either it is augmented in bulk and hypertrophied, or it is diminished in bulk and attenuated. This chronic softening of the heart is (as far as I know) always united either with hypertrophy or attenuation.

"Further, a heart softened and hypertrophied, or a heart softened and attenuated, has (as far as I know) always one or both of its ventricles dilated.

"Thus, this chronic softening is a part of threefold disorganization of the heart. And, if each part separately offers (as it does) but a slender hope of cure, the complex of the three may be set down as incurable. No bark or steel or tonic remedy can now reach the heart and strengthen it. No mercury or iodine or alterative remedy can now reach the heart and change it to its natural state again."

The work closes by a consideration of the sequelæ of diseases of the heart, which are treated in a masterly manner. Amongst the most frequent of these are affections of the lungs. Why this should be the case, is plain from the intimate relation sustained between them and the heart, and the proximity of these organs to each other.

Our author regards that obscure affection, angina pectoris, as being a spasm of the heart, and gives numerous cases from which deductions are drawn to sustain the opinion.



But as we have already dwelt at considerable length, we will draw our article to a close.

Our object is, while we give a general idea of the character of the work, to furnish from it such facts and conclusions as shall be of service to the physician.

We hope to have the influence of directing the attention of practitioners to the conditions of the heart in disease which are certainly too often neglected.

E.

## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE XI.

*Reports of the Trustees, Steward and Treasurer, and Superintendent of the Insane Hospital. 1845. Augusta, Maine.*

This Institution, under the care of Dr. James Bates, appears from the reports before us to be in a prosperous condition.

There were in the institution at the opening of the year, seventy-six patients, and admitted during the year ninety-nine. Whole number one hundred and seventy-five.

Discharged during the year—

Cured	-	-	-	-	38
Improved	-	-	-	-	22
Unimproved	-	-	-	-	23
Died	-	-	-	-	7
<hr/>					
Making	-	-	-	-	90

Leaving in the Hospital, at the close of the year, eighty-five patients.

We extract the following interesting paragraph :

“ Although it is impossible to obtain correct information on a subject which many persons consider as one of delicacy, if not involving reputation of family, we have always sought it, in relation to hereditary predisposition. In some families this is very evident. In one case a father and two sons have been here ; in two, the mother and daughter ; in one, a man and his nephew and niece, at the same time. Of 486 admissions, 211 are represented by their friends as having insane ancestry or blood relatives in that condition.

“ When we add to these, foreigners and others concerning whom little information can be obtained, there can be little doubt more than one half are hereditarily predisposed to that state of brain of which insanity is a symptom.” E.



## ARTICLE XII.

*New Books.*

We have been notified by Mr. Joseph Keene, successor to Brautigam and Keene, of Chicago, that a number of new works were on the way from the east for us, and also a package from London, care of Wiley and Putnam, New York.

Our readers may expect in the next number of the Journal a full account of all works received.

## PART IV.—SELECTIONS.

1. *On the Effects of Mercury on the Young Subject.* By JOHN B. BECK, M. D., Professor of Materia Medica and Medical Jurisprudence, in the College of Physicians and Surgeons, of New York.

In some previous papers,\* I have endeavored to point out the peculiarities attending the operations of opium and emetics, on the infant subject, as distinguished from the effects of these agents on the adult. I now propose to make some remarks on another article of even still greater importance, and that is *Mercury*. That Mercury is an agent of immense power, either for good or evil, upon the human constitution, cannot be questioned. While in many cases it is the means of saving life, in not a few it unquestionably destroys it. If this be so, it becomes a question of the deepest practical interest, to determine whether its action is modified in any way by the age of the patient, and particularly so, when it is recollected that it is given by too many physicians, even more freely, and may I not add indiscriminately, to the young subject than to the adult.

*The first and most striking peculiarity attending the action of Mercury is that in young subjects it does not produce salivation so readily as it does in adults.* Indeed, under a certain age, it appears to be exceedingly difficult to excite salivation at all in them. On this point, besides our own experience, we have abundance of testimony. Dr. Clarke says, “under various circumstances he has prescribed mercury, in very large quantities, and in a great number of cases; and he never produced salivation, except in three instances, in any child under three years of age.”† Dr. Warren, of Boston, observes, “that he has never known an infant to be salivated, notwithstanding he has given, in some cases, large quantities with this view.”‡ Mr. Colles, of Dublin, says “no man in the present day requires to be told that mercury never does produce ptyalism, or swelling and ulceration of the gums in infants.”§ Drs. Evanson and Maunsell speak still more strongly. They say, “mercury does not seem capable of

\* New York Journal of Medicine and the Collateral Sciences. Vol. ii, p. 1. Vol. vii, p. 153.

† Commentaries on some of the more Important Diseases of Children. By John Clarke, M. D., p. 182.

‡ View of the Mercurial Practice in Febrile Diseases. By John Warren, M. D., p. 146.

§ Practical Observations on the Venereal Disease and on the use of Mercury. By Abraham Colles, M. D., p. 171. Amer. edition.



salivating an infant. We have never seen it do so, nor are we aware of any such case being on record." "We have never succeeded in salivating a child under three years of age."\*

The same general fact seems to be applicable to the external use of mercury. Dr. Percival, of Manchester, remarks that he "repeatedly observed that very large quantities of the Unguentum Cæruleum may be used in infancy and childhood, without affecting the gums, notwithstanding the predisposition to a flux of saliva, at a period of life incident to dentition."†

That salivation does not take place so readily in the infant as in the adult, would seem then to be well established. That it never can or does take place, as might be inferred from some of the preceding quotations, is by no means, however, true; and the statement, if implicitly relied on, is calculated to be the cause of much mischief. That very young subjects do sometimes become salivated is unquestionable. One case, and only one, however, has occurred in my experience, in which a child of two years of age was salivated, and that by a very moderate quantity of calomel, viz., five grains, given in three portions, at intervals, within the space of about twelve hours. In about two days after, the gums became inflamed, the tongue swelled, several ulcers appeared in the mouth, and the flow of saliva was free; after continuing about three days in the same state, it gradually yielded and disappeared without any further inconvenience. In this case, everything seemed favorable to the development of mercurial action. The child had been laboring under whooping cough for several weeks, and was a good deal reduced. It vomited freely with every paroxysm of coughing, and this no doubt aided in bringing on salivation in a constitution peculiarly sensitive and evidently scrofulous. Nor is this a solitary case. Dr. Clarke, already quoted, admits that in three cases, salivation was produced in children under three years of age. And similar cases have been observed by others. Dr. Blackall relates the case of a child two years of age, who was salivated in consequence of taking two grains of calomel for several successive nights. The child was a poor scrofulous subject and it sunk under the effects of the mercury.

This, then, is a remarkable peculiarity in the action of this agent upon the infant subject, and the observation of it has doubtless led to the belief, too prevalent among some physicians, that it may be given to them, to almost any extent

\* Treatise on the Management and Diseases of Children, p. 38.

† Essays, Medical and Philosophical. By Thomas Percival, M. D., vol. ii, p. 318.

with perfect impunity ; an error, which if not in its immediate, yet certainly in its remote effects, has been the prolific source of more mischief probably than any of us are aware of.

*Although mercury so seldom salivates infants, yet, notwithstanding this, it cannot be doubted that it affects the system profoundly, and even more so, proportionally, than it does the adult.* That it should do so appears perfectly natural, when we reflect upon the mode of its operation on the human system. On this subject, I am aware that a great difference of opinion exists. By some, mercury was looked upon as a stimulant ; while others view it as a sedative. A familiar acquaintance with its effects, however, will show, I think, that it may be the one or the other, according to circumstances—according to the dose in which it is given—the length of time it is continued, and more especially, the condition of the system at the time of using it. A single large dose of calomel will cause nausea and relaxation, and sometimes unpleasant prostration, while if it be given in smaller doses and repeated frequently, it will occasion irritation of the intestines, and general disturbance of the vascular and nervous systems : in the former case acting as a profound sedative, and in the latter as a stimulant, or rather irritant. That calomel given in large doses operates as a sedative, seems to be proved, not merely by the nausea and prostration which it frequently produces, but by other considerations. In dysentery, for example, in the adult, a dose of twenty grains of calomel will sometimes allay pain and irritation, with as much certainty as a dose of opium. For the purpose of testing the effects of calomel some interesting experiments were made by Mr. Annesley, which would seem still further to show, that in large doses the action of the agent upon the mucous membrane of the stomach and intestines, is that of a sedative. He took three healthy dogs, and gave to one 3j of calomel, to a second, 3ij, to a third, 3iij. After this they were tied up in a room.

“The dog which took 3i did not appear to feel any sickness, till six or seven hours afterwards, when he vomited a little. He was lively the whole time, and ate his food well ; had been purged two or three times ; dejections of a black grey color.

“The dog which took 3ij was likewise lively and ate his food well, vomited two or three times, and was purged more than the other ; he passed tape worms, and the dejections were black.

“The dog which took 3iij was heavy and apparently uncomfortable the whole day, and did not vomit at all ; he was purged and passed a very long tape worm ; dejections also black.”



Twenty-four hours after they had taken the calomel, the dogs were all hung, and five minutes after they were dead, they were examined, and the vascularity of the stomach was found to be in the inverse ratio of the calomel they had taken; i. e., in the dog which had taken 3iij the vascularity was the least, and so on. For the purpose of comparing this with the condition of the stomach of a dog which had taken no calomel at all, an examination of another dog was made; and here the stomach was found to be *more vascular* than in any of the others. From these experiments, Mr. Annesley drew the conclusion, that "the natural and healthy state of the stomach and intestinal canal is that of high vascularity, and that the operation of calomel in large doses, is directly the reverse of inflammatory."\*

The foregoing considerations would seem to show that calomel in full doses is a local sedative, and in its general effects, is debilitating to the system at large. Hence its great utility and value as a remedy in many inflammatory diseases.

When, on the other hand, it is given in small and repeated doses, it acts not unfrequently as a local, as well as a general irritant, producing immoderate action of the bowels, and general irritation of the nervous and vascular systems. Now these, we know are the effects observed continually in the adult, and it is but reasonable to suppose that all of them must, of course, be aggravated in the more delicate and sensitive system of the infant.

What shows incontestibly that the action of mercury is actually more energetic on the infant than the adult, is the fact, that when salivation does take place in the former, as it sometimes does, its effects are more disastrous. Sloughing of the gums and cheeks, general prostration and death are by no means uncommon occurrences. On this subject, Dr. Blackall justly remarks, "a general opinion prevails, that the constitutions of young subjects resist mercury. Its entrance into the system they certainly do resist, more than we could expect; but they are greatly overcome by salivations, and the constant occurrence of such accidents may well set us constantly on our guard."† Dr. Ryan, too, says, "Ptyalism of infants is often followed by sloughing of the gums and cheeks; and this I have known to occur after the use of it in hydrocephalus."‡

Besides being more energetic in its action on the infant, mercury is also more uncertain. This must necessarily be

\* Transactions of the Medical and Physical Society of Calcutta. Vol i, 211.

† Observations on the Nature and Cure of Dropsies. By John Blackall, M. D., p. 126.

‡ Manual of Midwifery. By Michael Ryan, M. D., p. 477.

the case, and for the same reason that every other active agent is so. In the adult we know that mercury varies in its effects according to the condition of the system, and the peculiarities of the patient's constitution. Thus, some persons are salivated by the smallest quantity of this metal, while others resist the influence even of the largest quantities. In some, febrile action; in others, diarrhœa and exhaustion take place, even from moderate doses. Hence it is that every prudent physician, if unacquainted with the previous history of the patient, makes it a special subject of inquiry to ascertain whether he has ever taken mercury previously and how it affects him. Now in the young infant, of course, as we cannot so well have the benefit of this information, more uncertainty must necessarily attend its operation.

These, then, are the peculiarities attending the operation of mercury on young subjects, viz.: that they are salivated with great difficulty, and that, notwithstanding this, the effects of it are frequently more energetic and uncertain than they are in the adult. And it is upon these as the basis that I propose to make a few remarks bearing upon the practical application of it in young subjects.

1. If salivation occurs so rarely in children under a certain age, then it is evident that it can never be made a criterion by which to judge of its influence on their symptoms. To attempt, therefore, to produce this effect, as we do in adults, is manifestly improper. In cases where it is desirable to get the system under the influence of the remedy, other modes must be resorted to for the purpose of judging to what extent the use of the article should be carried. Now this is by no means easy. Even in adults, where we have the benefits of salivation as a test, all practical physicians are aware how difficult it is, frequently, to decide when it is proper to stop the use of the remedy. How much more so must this difficulty be increased in the young infant, where we are left without this guide. The only modes of judging, of course, are the character of the evacuations from the bowels, and the general impression made upon the disease for which it is administered. Both these are evidently, however, uncertain. It is to be feared, therefore, that for the want of a more certain guide than we at present possess, the use of this remedy is, in many cases, unnecessarily protracted, to the great detriment of the little patient. From all this the conclusion is obvious, that in the use of this article in the young subject much greater caution is necessary than in the adult.

2. The fact that mercury may prostrate and destroy a young child, even though it does not cause salivation, it is to be feared is not sufficiently appreciated, at least by some.



We have known calomel given without weight or measure to a young child, and the reason assigned to justify it was, that it could do no harm because it would not salivate. Now it appears to me that no opinion could be more unfounded, and no practice more mischievous. Although a single dose of calomel, even though large, may be well borne by children of ordinary strength of constitution, yet even this is not entirely safe in all cases. And when these doses are frequently repeated in delicate habits, the most serious consequences may result.

3. The use of mercury in young subjects as an alterative should, in all cases be conducted with great caution. There is no practice more common than that of continuing the use of this agent in small doses, for a considerable time, and certainly none which is more liable to abuse. Under the idea that the dose is so small, and from no salivation appearing, we are apt to infer that even if the medicine is not doing any good, it is certainly not doing any harm. Any improvement too, which occurs during the use of the article is sure to be attributed to the silent operation of it on the system. Now although this is not unfrequently the case, yet it is not invariably so; and every observing physician must have been aware of cases, in which, in this way, the article has been unnecessarily and injuriously continued. In bowel complaints, under the idea of altering the secretions it has frequently, no doubt, helped to keep up the very intestinal irritation which it was given to correct. In other cases it has developed the latent tendency to other diseases, such as scrofula, phthisis pulmonalis, etc. In adults we know this to be very often the case. How much more likely is all this to happen in the young infant?

4. In the use of mercury in young children, great care should be exercised in ascertaining, as far as possible, their constitutional peculiarities. This, of course, is not in all cases easily to be done. A good deal, however, may be learned from an acquaintance with the tendencies of the parents. Wherever the parents show indications of scrofula, or where there is an hereditary predisposition to consumption, great caution ought to be exercised in the use of mercury in their offspring.

5. Mercury should be administered with great caution, in cases where a child has been sick for a considerable length of time, and when the strength of the child has been very much reduced. In this state of constitutional depression, a single cathartic dose of calomel sometimes proves fatal. We think we have seen more than one case, in which a child has been irretrievably prostrated under these circumstances,

under the false impression that calomel is an innocent purgative to a child.

6. The too common practice of giving calomel as an ordinary purge, on all occasions, is certainly unjustifiable. From the facility with which it may be given, it is unquestionably resorted to in a great number of cases, where it is certainly unnecessary, and in a great number where it positively does harm. The misfortune is, that its use is not limited to an occasional dose, but it is too often given in every slight indisposition of the child. Now, in this way, there can be no question that the use of it has laid the foundation for the ruin of the constitutions of thousands. It ought to be a rule laid down and rigidly followed, that in very young children, mercury ought never to be used as a cathartic, unless there is a special reason for resorting to it. In a great majority of cases, milder cathartics are to be preferred.

In concluding these observations, I trust it may not be supposed that my intention has been to undervalue the importance of mercury as a remedy in the diseases of children. On the contrary, no one appreciates it more highly than myself. In many cases, nothing can supply its place, and its judicious use has been, and is, the instrument of saving multitudes of lives. Notwithstanding, however, the many cautions to the contrary, it is to be feared that the use of it is still too general and indiscriminate. Indeed, the amount of it which is taken by the human race, in one way or other, is incalculable. What is given by regular physicians, is perhaps the smallest quantity. If the public really knew how much of this article is swallowed unknown to themselves, in the shape of bilious pills, worm lozenges, and the white powders of the Homœopaths, they would be amazed at their credulity in deserting their old medical advisers, because they have the boldness to give them an occasional dose, and the honesty to tell them so.—*Annalist*.

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2. *Sir Humphrey Davy on the Use of Narcotic Vapors in mitigating Pain*.—In the collected works of Sir Humphrey Davy, published in 1839, occur the following remarks on the effects of narcotic vapors in producing insensibility.

“In one instance, when I had headache from indigestion, it was immediately removed by the effects of a large dose of gas; though it afterwards returned, but with much less violence. In a second instance, a slighter degree of headache was wholly removed by two doses of gas.

“The power of the immediate operation of the gas, in removing intense physical pain, I had a very good opportunity of ascertaining.

“In cutting one of the unlucky teeth, called *dentes sapientia*



I experienced an extensive inflammation of the gum, accompanied with great pain, which equally destroyed the power of repose and of consistent action.

"On the day when the inflammation was most troublesome, I breathed three large doses of nitrous oxide. The pain always diminished after the first four or five inspirations; the thrilling came on as usual, and uneasiness was swallowed up in pleasure.

"As nitrous oxide, in its extensive operation, appears capable of destroying physical pain, it may probably be used with advantage during surgical operations in which no great effusion of blood takes place."—*Bost. Med. and Surg. Jour.*

### 3. *Case of Poisoning by Camphor.*—By Dr. E. O. BROWN, of Brandenburg, Kentucky.

Mr. A., a stout robust man, on the 27th January, 1847, bought an ounce of gum camphor, had it put up in paper as usual, placed it in his pocket, and went to church. While there he would frequently pinch off small pieces and chew and swallow them, not noticing the quantity taken. After church he, with his father and brother, left town for home. When they had proceeded about one mile on their way, the two brothers were riding together, when suddenly the one who had taken the camphor drew up his bridle as though he was going to stop his horse, threw himself back and fell to the ground. Upon going to his assistance they found that he was powerfully convulsed; in a short time a second and a third convulsion followed. A gentleman passing at the time who was in the habit of bleeding, bled him, conveyed him to the nearest house, placed him in a warm bath, and gave him some medicine. He remained speechless, and perfectly unconscious of all that was going on for several hours. After some hours he gradually recovered his speech, but stated that he could not recollect any of the transactions of the evening on which the accident happened. He remained stupid, languid, and rather wandering all next day, but gradually recovered his former condition, and has enjoyed his health and spirits as usual since.

The foregoing history I derived from the father of the individual affected. The weight of the camphor sold by the druggist was ascertained, and on weighing it again it appeared that it had lost one hundred and ten grains. It may be concluded, therefore, that the young man swallowed something like that amount of the substance.—*West. Jour. of Medicine and Surgery.*

### 4. *Inhalation of Sulphuric Ether.*—Our exchange Journals continue to be crowded with cases and discussions illustra-

tive of the effects of this kind of medication. Not merely is it employed when cutting instruments are used, but in the treatment of luxations, hernia, and labor, especially in instrumental cases; in asthma, croup, and nearly all the ills that flesh is heir to. These numerous experiments will doubtless lead to a better understanding of its powers and adaptations, and it will be strange if much good does not result. Bad consequences are known to have followed the employment of the remedy in repeated instances but the only wonder is, with such indiscriminate use of so powerful an agent, that the number of accidents has not been greater. That our readers may know something of what is said and doing on the subject, at home and abroad, we have, at the sacrifice of variety, devoted a considerable portion of the present number to extracts bearing on the most important points involved in the discussion. Already, in this country, we think we discover a decline of the excitement in relation to it, which prevailed so extensively at the first.—*Med. Exam.*

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5. *Effects of Inhalation of Ether in Parturition.*—The following extract of a letter to the editor of the *Provincial Med. and Surg. Jour.*, dated Paris, Feb. 25th, will be read with interest:

“The mind of the profession here is entirely occupied upon the ether question, to the temporary exclusion of all others. The Baron Dubois read a very interesting paper to the Academy of Medicine the day before yesterday, giving the details of six cases of protracted and difficult labors, in which the vapor of sulphuric ether was inhaled with marked advantage. The particulars will be almost immediately published, but in the interim I may as well tell you that the results of the baron’s experience warrant him in concluding that the vapor of the ether may be inhaled by parturient women:—1st, without any danger to mother or child; 2d, with advantage to both, in so much as that it destroys all resistance in the voluntary muscles of the perineum, relaxing or rather paralyzing them for the moment, without impeding or interfering in the slightest degree with the natural physiological muscular actions of the uterus. The baron has also observed that the abdominal muscles in their actions in parturition are not at all affected by the inhaled ether.

“The two first cases—both instrumental—one in labor forty hours, the other thirty-six before the vapor was inhaled—turned out ultimately unfortunate, as both patients died of puerperal fever which was at the time prevailing in the hospital (La Maternite). This sad result, the baron does not think can be ascribed at all to the use of the vapor; nor does he on the other hand attribute the immunity of the other patients in the same hospital to it.



"The baron, upon interrogating the patients after delivery, as to their sensations during the operation, was informed by all but one, that they felt nothing of what was doing, but that one smiled and would not say what she had felt. It afterwards turned out that this patient, by her confessions to the nurse, was ashamed to say what she felt and thought, as she found herself engaged, all the time when under the influence of the ether and undergoing the operation of delivery, with her husband in that preliminary process which is so essential to the bringing about of that condition in which ladies like to be who love their lords."—*Med. News.*

6. *Copland's Medical Dictionary.*—A realization of what is meant by a snail's pace, is to be found in the manner of publishing Copland's Dictionary of Practical Medicine, the fifth volume of which was distributed to the fellows of the Massachusetts Medical Society on the late anniversary meeting. It was wishing a gentleman a long life, when a hope was expressed that he might live till the work was delivered in a state of completion, to the members; and with a weighty sense of the burden of an extreme old age, he might reply that such prospective longevity was undesirable. It is to be feared, from the acknowledged fact that the English language is insensibly undergoing changes, quite as remarkable as it has passed through since the age of Chaucer, that the early part of this learned production will not be as much valued by that remote generation of physicians in whose day the last pages will be distributed, as by their patient, dictionary-loving ancestors.—*Bost. Med. and Surg. Jour.*

7. *Death of the great French Surgeon, Lisfranc.*—TO THE EDITOR: Dear Sir—I have just received a letter from my nephew Dr. F. Willis Fisher, who is now in Paris, from which I make the following extract. Thinking that you probably might be pleased to be the first medical editor who should announce the death of Lisfranc to our public, I take the liberty of sending to you the extract. You will, of course, do what you please with it.

In haste, yours truly,

Boston, June 7, 1847.

J. D. FISHER.

"One of the most noted of the French Surgeons has paid his tribute to nature. Lisfranc is dead! After four weeks of suffering from pseudo-membranous croup (*angine couenneuse*) he fell a victim to that relentless malady. He requested that tracheotomy might be performed for his relief; but that operation was objected to, as false membranes were already formed in the pharynx, œsophagus, larynx, bronchi,

&c. He was aware of his situation, and said that he would not shrink before death *if his work on operative medicine were completed!* This remark of the dying Lisfranc is characteristic, not of Lisfranc alone, but of the French savans generally. It has often amused me to notice how jealous the French professors are of their scientific brethren, and how anxious they are to obtain professional notoriety. Lisfranc had become an old man, and he had all the feelings of youthful ambition. He had served as surgeon in the armies of Napoleon, and had been honorably noticed by that great man; and yet, on the day of his death, his craving for increased honor and glory seemed to be as imperious as ever. Lisfranc seems to have been a greater favorite with his countrymen than with foreign physicians and students. As a teacher he was much followed, and as a surgeon he deservedly held a high rank. He was a man of strong and violent prejudices—and never failed in exhibiting them in his lectures, whenever he spoke of those whom he considered as rivals. Dupuytren and Velpeau were the peculiar recipients of his censures—and he oftentimes spoke of these great men with a severity and an eloquence which must have characterized the age of the French revolution. All those who were familiar with the social character of Lisfranc, say that he was a warm hearted man—that he was ever a friend of the poor, and that his services and his purse were ever at the call of suffering humanity.”—*Bost. Med. and Surg. Jour.*



## PART V.—EDITORIAL.

## ARTICLE I.

## CLINICAL INSTRUCTION AT CHICAGO.

In order to enable our readers to judge of the facilities for obtaining a practical knowledge of medicine and surgery in the medical college at Chicago, we give below a table of the cases prescribed for at the College Dispensary, and the surgical cases treated at the Hospital from November 15th, 1846, up to May 15th, 1847, together with the operations performed in presence of the class during that time. In addition to these, a considerable number have been attended at their own houses by the more advanced students. The hospital is at present in successful operation, and the dispensary is attached to it. Great want of a suitable building is, however, felt, that at present occupied being but temporarily used for that purpose. This want will, however, soon be remedied, as the public authorities have in contemplation the erection of a suitable edifice for the accommodation of all classes of patients.

*Table of Cases treated at the College Dispensary at Chicago, from its commencement, November 15th, to May 15th, 1847.*

Dyspepsia - - - - -	5	Pneumonia - - - - -	1
Hypertrophy of the Heart	2	Catarrh - - - - -	6
Valvular Disease of the Heart - - - - -	3	Dislocation of Shoulder -	1
Dilatation of the Heart -	1	Deformed Cicatrix - - -	1
Enlarged Tonsils - - - -	1	Quinsy - - - - -	1
Ophthalmia - - - - -	6	Ptosis - - - - -	1
Dislocation of the Elbow	2	Phthisis - - - - -	1
Indolent Ulcers - - - -	12	Wound of Eyes - - - -	1
Abscess - - - - -	6	Asthma - - - - -	4
Anasarca - - - - -	8	Elongated Uvula - - - -	1
Chronic Pleurisy - - - -	1	Phymosis - - - - -	1
Nasal Polypi - - - - -	2	Rheumatism - - - - -	6
Caries - - - - -	4	Constriction of Larynx -	1
		Porrigio - - - - -	1

Neuralgia - - - - - 6	Vertigo - - - - - 1
Strabismus - - - - - 2	Infantile Remittent - - 5
Diseased Stump - - - - 2	Dentition - - - - - 4
Dysmenorrhœa - - - - 2	Goitre - - - - - 1
Gastritis - - - - - 1	Constipation - - - - - 3
Necrosis - - - - - 3	Diarrhœa - - - - - 2
Peritonitis - - - - - 2	Schirrhous Tumor - - - 1
Hernia - - - - - 1	Encysted Tumor - - - 3
Bronchitis - - - - - 9	Prurigo - - - - - 2
Hysteria - - - - - 1	Cephalalgia - - - - - 2
Scabies - - - - - 5	Ptyalism - - - - - 1
Inscised Wound - - - - 4	Ulcerated Sore-throat - - 1
Encysted Tumour - - - - 3	Croup - - - - - 1
Erysipelas - - - - - 1	Nephritis - - - - - 1
Morbus Coxarius - - - - 1	Ecthyma - - - - - 1
Fracture of Metacarpal	Hare-lip - - - - - 1
Bones - - - - - 3	Club-foot - - - - - 4
Fracture of Femur - - - 1	Abdominal Tumor - - - 1
Fracture of Neck of Femur 1	Schirrhous Pylorus - - - 2
Fracture of Radius - - - 2	Vicarious Menstruation - 1
Fracture of Tibia and Fib-	Fistula in Ano - - - - 2
ula - - - - - 2	Dislocation of Elbow - - 2
Fracture of Clavicle - - 1	Polypus of External Ear - 1
Influenza - - - - - 1	Cutaneous Cancer - - - 1
Intermittent Fever, with its attendants and sequelæ -	202
<hr/>	
Total - - - - -	379

Most of these returned a number of times so that the course of the disease and the effects of treatment could be watched.

The following operations, dressings, &c., have been performed.

Excision of Tonsils, - - - -	1
For Fistula in Ano by division, - - -	2
For Fistula in Ano by ligature, - - -	1
Extirpation of Encysted Tumors, - - -	3
Extirpation of Scirrhus Tumors, - - -	1
Operation for Hare-lip, - - - -	1
Amputation of Finger, - - - -	1



Amputation of the Metatarsal Bones, -	-	1
Operations for Club-foot, -	-	4
Operation for Ptosis, -	-	1
Operations for Trichiasis, -	-	2
Operation for Cutaneous Cancer, -	-	1
Extraction of Nasal Polypi, -	-	3
Operation for Strabismus, -	-	1
Removal of Vicious Cicatrix, -	-	1
Removal of Polypus of the Ear, -	-	1
Operation for Phymosis, -	-	1
Extirpation of Abdominal Tumor, -	-	1
Reduction and Dressing of Dislocation of		
Elbow of five months' standing, -	-	1
Reduction and dressing of Fracture of Meta-		
carpal Bones, -	-	3
Reduction and Dressing Fracture of Radius, -	-	2
Reduction and Dressing Fracture of Femur, -	-	1
Reduction and Dressing Fracture of Tibia		
and Fibula -	-	2
Reduction and Dressing Fracture of Clavicle, -	-	1
Total -	-	37

*Physicians and Surgeons to the Chicago Hospital.*

Attending Physician—Dr. H. S. HUBER.

Consulting Physicians—Dr. E. S. KIMBERLY,  
Dr. J. BRINCKERHOFF,  
Dr. G. D. BOONE,  
Dr. J. V. Z. BLANEY.

Attending Surgeon—Dr. D. BRAINARD.

Consulting Surgeons—Dr. W. B. HERRICK,  
Dr. P. MAXWELL.

## ARTICLE II.

## MEDICAL SOCIETIES.

The ROCK RIVER MEDICAL SOCIETY which has, from time to time been noticed in our Journal, appears still to be in a prosperous condition, as will be seen by the following abstract from the proceedings of their last meeting furnished us for publication.

This is as it should be, and proves that the large body of intelligent physicians of the region included by the limits of the Society, properly appreciate the influence of such organizations in advancing the interests of the profession by diffusing information, exciting each other to emulation, causing investigations, and by promoting harmony and good fellowship amongst us.

Pursuant to adjournment, the Rock River Medical Society met, for the purpose of holding its annual meeting, in Rockford, Ill., May 18th, 1847.

The President, J. C. Goodhue, M. D., being in the chair, the meeting was duly organized by appointing Drs. Nash and Crosby, Vice Presidents pro tem., the regular Vice President being absent.

On motion, Drs. Payne, Ellis, Gregory, Spencer, Crosby, and Golliday were admitted members of the Society.

A paper was then read by Dr. S. G. Armor, on the *Pathology and Treatment of Periodical Fevers*, which led to a general expression of opinion on the subject by members of the Society. Interesting cases were also reported by Dr. Ames, detailing the character, progress and treatment of malignant fevers of a congestive form.

The following resolutions were offered by Dr. Lucius Clark, and unanimously adopted by the Society :

*Resolved*, That each member of this convention will use his exertions to elevate the standard of Medical Education in the west, by discouraging quackery in all its forms—by investigating assiduously the Medical Topography of his own region—by communicating the results of his observation to his professional brethren—And by sustaining, as far as is



consistent with their merits, our western Medical Periodicals and western Medical Schools.

*Resolved*, That, as a *means* to elevate the standard of Medical Education, physicians should dissuade young men from entering the profession whose preparatory education is deficient.

*Resolved*, That as facilities for teaching the several branches of Medical Education are much greater at public institutions than they possibly can be under the instruction of private preceptors, students should be discouraged from taking upon themselves the responsibility of the healing art, until they shall have graduated in their profession, at some respectable school.

The Society then proceeded to ballot for officers for the ensuing year, which resulted in the election of the following gentlemen, to-wit:

*President*—J. B. NASH, M. D.

*First Vice President*—A. CLARK, M. D.

*Second Vice President*—C. MARTIN, M. D.

*Secretary*—R. S. MOLONEY, M. D.

*Treasurer*—S. G. ARMOR, M. D.

*Censors*—A. W. BENTWORTH, M. D.

J. C. GOODHUE, M. D.

The chair appointed W. W. Welch, M. D., to read a paper before the Society at its next annual meeting.

On motion,

*Voted*, That the Society hold an evening session at the Court House, at 7 o'clock, P. M., at which time a lecture was delivered on the subject of *Homæopathy* by Dr. Armor. Interesting remarks, relating more particularly to the *practice* founded on the theory of this school of doctors, were made by Dr. Goodhue.

On motion,

*Voted*, That the next annual meeting of this Society be held at Dixon, Lee county, Illinois, on the third Tuesday in May next, and that a semi-annual meeting be held in Beloit, Wisconsin Territory, on the third Tuesday in November.

S. G. ARMOR,

*Secretary Rock River Medical Society.*

The UNION MEDICAL SOCIETY of northern Indiana, held its third annual meeting in Goshen, on the second Tuesday in May last.

Papers were read as follows: by Dr. Henkle on Quackery, by Dr. Willard on Erysipelas, and by Dr. Parks on Pneumonia; which last excited a spirited discussion.

Dr. Ellis, the President, then delivered an address which we are sorry our limits forbid us from laying before our readers.

These Societies have now stood out their probation, and may be considered as permanently established.

We hope our brethren in other districts will follow the example set them by the Rock River and Northern Indiana physicians in organizing themselves into bodies for mutual benefit. What more refreshing to the careworn practitioner, than occasionally thus to meet with friends with whom he has a common interest, who can appreciate his toils for afflicted man; who think in unison with him on topics that mutually engage their attention; who have the same trials and difficulties to contend with, and who also join in his consolations. Certainly such scenes, with such men, could but be productive of a "flow of soul," and of those

"Greenest spots in Memory's waste."

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#### ARTICLE III.

#### MEDICAL LEGISLATION.

There seems to be a disposition on the part of the public, or a part of them at least, to have some legislative action in reference to our profession in Indiana; not to protect themselves from the unprincipled charlatan, for fear such protection might result in a professional monopoly, to the exclusion of those who have *not spent* time, money, and the student's toils to qualify themselves, but to fix a tariff of fees by law to govern us in all cases.

The propriety of this has, year after year, been mooted in



our General Assembly, but as yet without any efficient action on the part of that honorable body. Many think it as well to fix the price of corn, flour, and daily labor as the services of physicians.

The following report on the subject, made to the Senate last winter explains itself:

*The Report made by Mr. Bowers, Chairman of the Committee on Agriculture, on the Evil now existing in the shape of Doctors' Bills.*

MR. PRESIDENT:—The committee on agriculture, to whom was referred the petition of Enoch Davis and others, praying the General Assembly to inquire into and remove the evil now extant in the shape of Doctors' bills, have, according to order, had the same under consideration, and have instructed me to report that the committee are sensible of the importance of the subject referred to them, and the magnitude of the evil complained of; that it is a source of no little regret to your committee that they have to acknowledge, not only the existence and magnitude of the evil, but also the daily increase of the same. Various causes may be assigned for the increase of the number of these bills, one of the most prominent of which is the known liberality of the members of the profession, and their unwillingness to force, or even urge, the payment of their bills; depending frequently upon the justice and honesty of their employers to come forward and liquidate their bills, until the physician finds himself embarrassed for the want of those means that a prompt and timely payment of them would have supplied him with. Fortunate would it be if the evil stopped here, but not so: the consciences of the debtors, after a while, become awakened, and, conscious of having neglected their duty, their minds sicken and become diseased, and the body, sympathising with the mind, becomes diseased likewise; the physician then has to be sent for, another bill is added to the former, and thus it goes on, the evil increasing, bill being added to bill, *ad infinitum*.

Your committee are fully of the opinion that the remedy for the evil is far beyond the reach of legislation, and that it remains alone for those upon whom the evil must eventually fall to remedy the same. This can only be done by the prompt payment of the bills, to enable the debtors to effect so desirable an object, the committee on agriculture recommend to the petitioners, and all others similarly situated, early rising in the morning, deep ploughing, a judicious selection of the best seeds, a careful attention to the stock on the farm, a

total abstinence from all intoxicating drinks, and to rigidly adhere to the Divine injunction to "render unto Cæsar the things that are Cæsar's;" and with this recommendation, the committee ask to be discharged from the further consideration of the subject.

As is shown by the following, taken from the Boston Medical and Surgical Journal, some of the good people of Connecticut are disposed to seek relief from the same evil:

*"Medical Legislation in Connecticut.*—In the House, May 14th, 'Mr. Howard presented the memorial of John G. Corning and others, praying for a law concerning physicians' fees and prescriptions. The memorial was read. It humbly showed that the healing art had been made too much a mystery for ages, to the injury of morality and giving great facilities for fraud; and the petitioners prayed that a law might be passed directing that all prescriptions shall be legibly written in the English language, that no apothecary shall deliver any medicines without affixing to the bottle or parcel a label in the English tongue, setting forth the contents and mode of mixture; and regulating the fees of physicians. Referred to the committee on patent medicines.'"

We observe that the Ohio Medical Convention, which met at Columbus in May last, has come to the conclusion to solicit the legislature of that State to enact a law in reference to the profession—not to guard against "Doctors' Bills"—but against the impositions of Quackery upon community; and "with a view to giving elevation to the profession in the State, and securing their rights, the following course was adopted:

*"Resolved,* That a committee of fifteen members of this convention be appointed, whose duty it shall be to frame a proper memorial to be laid before the Legislature of this State at its next session, praying for the enactment of a law regulating the practice of physic and surgery in the State of Ohio.

*"Resolved,* That said committee cause a suitable number of copies of said memorial to be printed and circulated throughout the State, and that every regular physician therein be earnestly requested, and every member of this convention enjoined, to procure the signatures of voters to said memo-



rial, and forward the same to the city of Columbus, on or before the first Monday in December next, directed to the Speaker of the House of Representatives of Ohio.

“*Resolved*, That said committee be further required to draft a bill regulating the practice of physic and surgery, and cause the same to be laid before the legislature at its next session, and that they give their personal attention to the action of said body upon the same until finally disposed of.”

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ARTICLE IV.

NATIONAL MEDICAL CONVENTION.

The meeting of this association which met in Philadelphia on the fifth of May last, was large, and composed of many of the first men of the nation. All the States of the Union were represented except Maine, Alabama, Arkansas, Wisconsin, Texas, and Florida.

There were seventy-two medical associations represented. Some of them by a number of delegates, whose credentials were examined by a committee and they took their seats.

Dr. Holmes, of Massachusetts, from a committee of one from each State represented, appointed for the purpose, reported the following named members for officers of the convention, who were unanimously appointed, viz.:

Dr. J. KNIGHT, of Connecticut, *President*.

Drs. ALEX. H. STEVENS, of New York, G. B. WOOD, of Philadelphia, A. H. BUCHANAN, of Tennessee, and JOHN HARRISON, of Louisiana, *Vice Presidents*.

Drs. R. D. ARNOLD, of Georgia, A. STILLE, of Philadelphia, F. C. STEWART, of New York, *Secretaries*.

The following account of the first day's proceedings we take from the New York Med. and Surg. Reporter:

Several propositions were made to admit gentlemen of the medical profession, not delegates to the Convention, to seats in the body, all of which were voted down.

The convention then proceeded to the consideration of the

Report on the subject, (which was referred to a Committee at the last meeting of the Convention in 1846,) of instituting a National Medical Association, for the protection of the Medical Profession, &c. The name of the Association to be the American Medical Association.

On motion of Dr. Watson, of New York, the report was laid on the table, and the same ordered to be printed.

The Convention next took up the Report, accompanied by the address of the committee of the last Convention appointed to consider the expediency, &c., if deemed expedient, of the mode of recommending and urging upon the several State governments, the adoption of measures for a registration of the births, marriages, deaths of their several populations.

The report was accepted, and the address adopted and ordered to be printed.

The convention adjourned until 7 P. M.

EVENING SESSION.—The convention re-assembled at seven o'clock, pursuant to adjournment, when

The President laid before the convention a letter from the managers of the House of Refuge, and also one from those of the Pennsylvania Institution of the Deaf and Dumb, inviting the delegates of the national medical Convention to visit those public institutions.

The convention again proceeded to the consideration of reports—the first being that of the committee appointed at the last session on the following resolution, viz.:

*Resolved*, That it is desirable that a uniform and elevated standard of requirements for the degree of M. D., should be adopted by all the medical schools in the United States, and that a committee of seven be appointed to report on this subject at a meeting to be held in Philadelphia on the first Wednesday in May, 1847.

Dr. Haxall, of Virginia, the chairman, read an elaborate, elegantly written, and argumentative report, of which the above resolution formed the basis. The following important resolutions were embodied in the report, for the consideration and action of the convention.

*Resolved*, 1st. That it be recommended to all the colleges to extend the period employed in lecturing from four to six months.

2d. That no student shall become a candidate for the degree of M. D., unless he shall have devoted three entire years to the study of medicine, including the time allotted to attendance upon the lectures.

3d. That the candidate shall have attended two full courses



of lectures, that he shall be 21 years of age, and in all cases shall produce the certificate of his preceptor, to prove when he commenced his studies.

4th. That the certificate of no preceptor shall be received who is avowedly and notoriously an irregular practitioner, whether he shall possess the degree of M. D. or not.

5th. That the several branches of medical education already named in the body of this report be taught in all the colleges; that no less than one hundred lectures be delivered by each Professor, and that the number of Professors be increased to seven.

6th. That it be required of candidates that they shall have steadily devoted three months to dissections.

7th. That it is incumbent upon Preceptors to avail themselves of every opportunity to impart clinical instruction to their pupils; and upon Professors to connect themselves with hospitals, whenever it can be accomplished, for the advancement of the same end.

8th. That it is incumbent upon all schools and colleges granting diplomas fully to carry out the above requisitions.

9th. That it be considered the duty of Preceptors to advise their students to attend only such institutions as shall rigidly adhere to the recommendations herein contained.

The Report was accepted and ordered to be printed.

Dr. James Cowper, from the Committee on the following resolution, passed by the last Convention, made a report thereon, which was received, read and ordered to be printed.

*Resolved*, That it is desirable that young men, before being received as students of medicine, should have acquired a suitable preliminary education, and that a committee of seven be appointed to report on the standard of acquirements which should be exacted of such young men, and to report at a meeting to be held at Philadelphia on the first Wednesday in May, 1847.

The Report of the committee concludes with the following language:

The object to which the Committee has directed its labors, it is believed, can be best effected by the Convention in the following way:

1st. By establishing a uniform standard of preliminary education for medical students, which shall be of a moderate character—in the first instance, too low rather than too high,—and yet of such extent as will insure both the knowledge and the mental discipline necessary to those who would enter a profession full of labor and responsibility, without excluding meritorious young men of limited means and opportunities.

2d. By earnestly recommending every medical preceptor

to exact this standard of every young man, before admitting him into his office; and having exacted it, to grant him a written certificate to that effect, specifying also the period of his admission into the preceptor's office, as a proper warrant and credential for the student, when about entering a medical college.

3d. By requesting all the medical colleges of the country to require such a certificate of every student applying for matriculation, and, in publishing their annual lists of graduates, to accompany the name of the graduate with the name and residence of his preceptor, the name of the latter being clearly and distinctly presented, as certifying to the qualification of preliminary education.

These ideas the committee have put into the form of distinct resolutions, which they append to their report, submitting both for the consideration of the convention, and, if it think proper, its adoption.

*Resolved*, That this convention earnestly recommends to members of the medical profession, throughout the United States, to satisfy themselves, either by personal inquiry or the written certificate of competent persons, before receiving young men in their offices, as students, that they are of good moral character, and that they have acquired a good English education, a knowledge of natural philosophy, and the elementary mathematical sciences, including geometry and algebra, and such an acquaintance, at least, with the Latin and Greek languages, as will enable them to appreciate the technical language of medicine, and read and write prescriptions.

*Resolved*, That this convention also recommends to the members of the medical profession of the United States, when they have satisfied themselves that a young man possesses the qualifications specified in the preceding resolution, to give him a written certificate, stating that fact, and recording also the date of his admission as a medical student, to be carried with him as a warrant for his reception into the medical college in which he may intend to complete his studies.

*Resolved*, That all the medical colleges in the United States be, and they are hereby recommended and requested to require such a certificate of every student of medicine applying for matriculation; and, when publishing their annual list of graduates, to accompany the name of the graduate with the name and residence of his preceptor, the name of the latter being clearly and distinctly presented, as certifying to the qualification of preliminary education.

Dr. Bell, of Philadelphia, from the committee on the fol-



lowing resolution, adopted by the convention in 1846, made a very long report thereon, which was accepted, read, and laid on the table.

*Resolved*, That it is expedient that the medical profession in the United States should be governed by the same code of medical ethics, and that a committee of seven be appointed to report a code for that purpose at a meeting to be held in Philadelphia on the 1st Wednesday of May, 1847.

The convention adjourned at half past 9 o'clock, to meet again at 9 o'clock, Thursday morning.

MAY 6th.—The convention met pursuant to adjournment.

The report of the committee on Medical Education was taken up, on motion of Dr. Hays, and the resolutions severally adopted without amendment, except the seventh, for which, on motion of Dr. W. L. Atlee, the following was substituted :

*Resolved*, That it is incumbent upon the preceptors to avail themselves of every opportunity to impart clinical instruction to their pupils ; and upon medical colleges to require candidates for graduation to show that they have attended upon hospital practice for one session whenever it can be accomplished.

The following additional resolution, offered by Dr. Stewart of New York, was adopted :

*Resolved*, That it be suggested to the faculties of the various medical institutions of the country, to adopt some efficient means of ascertaining that their students are actually in attendance upon their lectures.

After receiving an invitation from Dr. Kirkbride to visit the Pennsylvania Hospital for the Insane, under his care, the convention adjourned until nine o'clock to-morrow morning.

MAY 7th.—Met pursuant to adjournment.

Dr. Haxhall moved to reconsider the vote taken on the fifth resolution adopted yesterday in reference to medical colleges, in which each professor was required to give one hundred lectures to make his course complete in the estimation of the convention ; which was carried. The number of lectures was then stricken out, and the resolution adopted.

On motion of Dr. Watson of New York,

The convention took from the table the report of the com-

mittee in reference to organizing a National Medical Association, and after considering the articles of constitution some time, they were adopted as a whole.

The convention then took up the consideration of the report of the committee on medical ethics ;

Which report was adopted without amendment.

The report of the committee on the subject of separating the business of teaching and licensing was taken up, and, on motion of Dr. Leonard, of Maryland, the following resolution was adopted :

*Resolved*, That in view of the necessity hereby declared for reform in the manner of conferring degrees, the two reports submitted by the committee on the separation of teaching and licensing, be published and referred to the committee on medical education, with instructions to report at the next annual meeting of the American Medical Association.

The convention then adjourned to five o'clock, P. M.

EVENING SESSION.—Dr. Flint of New York, offered the following resolution, which was adopted :

*Resolved*, That it be recommended by this convention to the medical profession of the States, wherein laws sanctioning and providing for the prosecution of dissections do not already exist, to unite in endeavoring to procure the passage of such laws.

Dr. Stewart of New York offered the following :

*Resolved*, That all unfinished business be referred to the "American Medical Association" about to be organized.

*Resolved*, That this convention do now resolve itself into the "American Medical Association," and that the officers of the convention continue to act as officers of the Association until others be appointed ;

Which were unanimously adopted.

A committee of one from each State represented was appointed to nominate suitable persons as officers of the association, who reported—

*For President*—Dr. N. CHAPMAN, of Philadelphia.

*For Vice Presidents*—Drs. J. KNIGHT, of Connecticut ; A. H. STEVENS, of New York ; J. MOULTRIE, of South Carolina ; and A. H. BUCHANAN, of Tennessee.



*For Secretaries*—Drs. A. STILLE, of Philadelphia; and J. R. W. DUNBAR, of Baltimore.

*For Treasurer*—Dr. ISAAC HAYS, of Philadelphia.

A ballot was then had, and the persons named in the report were unanimously elected officers of the association for the ensuing year.

Dr. Chapman, President elect, was introduced, and on taking the chair made the following remarks :

He said he could find no language to express the depth of his gratitude. It had often been his good fortune during his professional life to have been complimented in the same manner, though not in the same degree. This was the most precious of all the honors he had received, as spontaneously conferred by his own brethren. He confessed his incompetency to serve the association as he could desire. He said he loved his profession, and should be ungrateful if he did not: whatever he possessed in this life had been bestowed by its favors; when he forgot it or deserted it and its disciples, he remarked with great emphasis, may God Almighty forget and desert me. He desired that the association should be persuaded of his ardent wishes for the cause, and that his most strenuous efforts would be unceasingly directed to advance the dignity of the profession, and extend its usefulness.

The following was offered by Dr. John B. Johnson, of Missouri :

Whereas, numberless and important evils result from the almost universal practice of allowing persons wholly ignorant of drugs and medicines to engage as apothecaries; and still greater from the universal traffic in patent and secret medicines; therefore,

*Resolved*, That the committee on education inquire into the expediency of establishing a school or schools of pharmacy in the respective States, for the special purpose of preparing persons for the business of apothecaries; and also the expediency of adopting a rule that no physician ought to patronize a druggist or apothecary who deals in patent and secret medicines, and report at the next annual meeting of the association. Adopted.

The following was offered by Dr. F. Campbell Stewart, of New York:

*Resolved*, That the committee on publication be directed to have published not less than two thousand copies of the proceedings of the late convention, with the reports, and of this association up to the time of its adjournment; and distribute the same to the members of the association. Passed.

After which, on motion, the association adjourned to meet in Baltimore on the *first Tuesday* of May, 1848.

For much of the foregoing account we are indebted to the Medical Examiner.

We hope soon to receive the official Journal of the proceedings of the convention, with the interesting reports acted upon, when our readers shall hear of it again.

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ARTICLE V.

VACANCIES IN MEDICAL SCHOOLS.

ROBERT HARE, M. D., the eminently distinguished Professor of Chemistry in the University of Pennsylvania, has resigned his chair.

We would be gratified to see the venerable institution from which he has retired, lead off in the great and good work of selecting professors by concours, in filling the vacancy thus occasioned. It would have a powerful influence in determining the policy of other schools, in this respect; teaching them to prefer merit to influential social relations.

JOHN MOOREHEAD, M. D., who has for a long time been connected with and filled different chairs at different times in the Medical College of Ohio, has resigned that of Theory and Practice which he last held.

We would urge upon our friends of Ohio, also, the system of concours.

J. G. NORWOOD, M. D., has resigned the chair of Materia Medica in the University of St. Louis and accepted an appointment in the corps of geologists sent out by the General Government to survey the mineral lands of the north-west.



The death of Prof. REVERE has left the chair of Theory and Practice vacant in the University of the city of New York.

And the chair of Surgery in the medical department of Hampden Sydney College of Virginia is vacated by the death of Professor WARNER.

What an impression upon the profession for good would be made could all these vacant places be filled by public trials! What imposing scenes to see the intellectual conflicts between the first minds in the profession! What new life and energy it would diffuse into the great body of the profession for its members to feel that by merit they were all entitled to consideration for the first places and rank! Let the system be adopted, and an era will be marked in our history, of far greater importance than any that has been for the last half century, or is likely to be, without it, for half a century to come.

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ARTICLE VI.

FILLING VACANT CHAIRS BY PRIVATE APPLICATIONS.

This plan, adopted by Transylvania University last year to fill the vacant chair of Obstetrics in the medical department of that school is the nearest approach, in this country, to the system of concours, which we ardently hope yet to see adopted by all colleges. In the instance above referred to the system of private applications seems to have worked well.

The University of the city of New York, we observe by an advertisement, has determined upon the same plan to fill the vacant chair of Theory and Practice in that school. By it "The Medical Profession are informed that applications for this professorship will be received until August 10th." Communications to be addressed to John W. Draper, M. D., Secretary of the Faculty, No. 364, Fourth Street, New York. The name of no applicant except the successful one, to be made known.

This we regard as tending to the system of public trials.

It has some advantages, but we think great disadvantages. It is a good test of an individual's standing in community by showing the number and character of the recommendations he can muster. But all know that many good men and talented practitioners, with great influence in society, are yet wholly unqualified for public teaching. While it gives all an opportunity to "try," there cannot be that confidence in its impartiality there would be if the trial were a public one. Here, too, the applicant, unless successful, gains nothing; when, if public, he would have the additional inducement of a prospect of distinguishing himself and of thus being placed in a favorable light for a succeeding contest.

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## ARTICLE VII.

## GEOLOGICAL SURVEY.

The Corps of Geologists recently appointed by the General Government to survey the mineral lands authorized by Congress to be brought into the market, is made up of some of the most scientific men in the country.

David Dale Owen, of Indiana, formerly geologist of the State, distinguished for his ability and correctness in this department of science is chief; with Dr. J. G. Norwood, of Indiana, Col. Charles Whittelsey, of Ohio, Prof. Randall, of Cincinnati, B. C. Macy, of New York, and Dr. Shumard, of Kentucky, as assistants.

The service is expected to continue for several years, and we will look forward with much interest to the reports of their progress, which we suppose will be sent in from time to time.

We understand the principal field of their operations will be the northern part of Wisconsin and the new territory of Minnesota.



ARTICLE VIII.

A PRIZE.

We observe that the Medical Society of Lexington, Kentucky, offers a prize of fifty dollars, or a gold medal worth that sum, at the option of the receiver, for the best inaugural thesis that shall be presented to the Faculty of Transylvania University, for the Degree of Doctor of Medicine, at its next session.

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ARTICLE IX.

LETHEON.

A spirited war has been, for some time past, carried on between those claiming priority in the discovery of the narcotic effects of the ethereal vapor.

Whether the different claimants will be able to throw any new light upon the subject of its discovery or not does not yet fully appear.

The hottest of the conflict is between Drs. Jackson, Morton, and Wells.

We would respectfully suggest that the patent taken out for its use be honorably relinquished, as it appears the object of it was to secure the title to the discovery, which will now have to be sustained by other evidence. Pray let the profession and the public enjoy the benefits of the application of ether without paying to sustain any one's claim to priority of discovery.

Suppose a patient takes the ether for the insensibility it produces to pain, and, while under its influence, the surgeon performs an operation, charging no other fee than he would be entitled to under other circumstances, what damage would be to pay the patentee? Would damages lie against the surgeon, who has enjoyed none of the advantages of the infringement? or would the patient be subjected to damage for the exemption from pain he has enjoyed?

These are queries that naturally arise in connection with the subject, which *may* be settled by the proper authorities if folks do not quit claiming the discovery of the letheon.

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## ARTICLE X.

## PROFESSOR HERRICK.

Our colleague who, our readers are aware, has been, during the past year, serving as surgeon in the army in Mexico, has returned to his post at home, and will hereafter devote himself to the practice of his profession in Chicago, to his labors as co-editor of the Journal, and to his duties as professor of anatomy in Rush Medical College. As he has seen much service in his department while absent, having been principal acting surgeon at the bloody conflict of Buena Vista, our readers have a right to expect, and we doubt not will shortly receive, a full account of all that is of interest pertaining to the profession, that came under his observation.

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## ARTICLE XI.

## OBITUARY.

Died, suddenly, on the 9th of May, Dr. George McClellan of Philadelphia, in the 51st year of his age..

Dr. McClellan stood confessedly in the first rank of surgeons, not only in this country, but of the present time. He was bold, skillful, fertile in resources, inventive and original in a high degree. We have not at hand the materials to enable us to give, at this moment, an examination of his most brilliant achievements in surgery. His operations and improvements are nowhere collected together and recorded, but scattered through the pages of many different periodicals and books, and disseminated and spread with a liberal hand among his pupils and the profession at large. We may say,



however, that scarcely a difficult operation can be named which he had not performed many times, and in some instances improved upon the mode of their performance.

He was a man of extensive knowledge out of his own profession; of warm and generous sympathies; of a kind and liberal heart. We are much pleased to notice the respect paid to his memory in Philadelphia, which has, in his death, sustained severe loss. We have not heard whether the intention he long entertained of recording his experience in a systematic form, as a treatise on surgery, had been carried into effect, but if not he has left behind him no monument worthy of his mind and talents.

On the 10th of May, of consumption, CICCERO ROBBE, M. D., of Pleasant Grove, Illinois.

Dr. Robbe was a graduate of the Medical College at Chicago, and during the short time he had been in practice (about one year,) had gained an extensive reputation, and gave promise of eminence. He was expected to give the course on anatomy at the summer term of Rush Medical College, but was prevented by ill health.

On the 29th of April last, of pneumonia, JOHN REVERE, M. D., Professor of Theory and Practice of Medicine in the University of New York, in the 60th year of his age.

Professor Revere was an accomplished and popular teacher. He lived highly respected, and died deeply regretted.

On the 2d of April last, Hon. JOHN COTTON, M. D., of Marietta, Ohio.

He was an ornament to the profession, by his great learning, sound judgment, and solid piety.

On the 5th of May last, A. L. WARNER, M. D., Professor of Surgery in Hampden Sydney College, Virginia.

## NOTICE TO READERS AND CORRESPONDENTS.

We have received original communications from Drs. McNutt, Matthews, and Davis, which will appear in our next.

Those of our correspondents who are not on our regular list, will please to affix their titles to their names—we are often at a loss to do it.

A correspondent wishes to know why our regular contributors do not write more, and why some of them do not write at all.

Received Professor DUNGLISON's Charge to the Graduates of Jefferson Medical College, of Philadelphia, March 25th, 1847; with a list of the Graduates, numbering 181.

Catalogue of the Medical Department of Transylvania University for the session of 1846—'47. Number of Students, 205; of Graduates, 68.

Transactions of the Medical Society of the State of New York, vol. vii, part first.

We have received in exchange the following periodicals:

Braithwaite's Retrospect of Practical Medicine and Surgery. Part xiv.

New York Journal of Medicine, etc., New York.

The Annalist, a Record of Practical Medicine, New York.

New York Medical and Surgical Reporter, New York.

The Medical Examiner, etc., Philadelphia.

The Medical News and Library, Philadelphia.

The Western Journal of Medicine and Surgery, Louisville, Ky.

The Western Lancet and Medical Library, Lexington, Ky.

The Southern Medical and Surgical Journal, Augusta, Georgia.

The Boston Medical and Surgical Journal, Boston, Mass.

The Missouri Medical and Surgical Journal, St. Louis, Missouri.

The St. Louis Medical and Surgical Journal, St. Louis, Missouri.

The Practical Educator and Journal of Health, Boston.

Stockton and Co.'s Dental Intelligencer, Philadelphia.

## CONTRIBUTORS TO THE ILL. AND IND. MED. AND SURG. JOUR

S. G. Armor, M. D., Rockford, Ill.

A. H. Howland, M. D., Ottawa, Ill.

A. G. Henry, M. D., Pekin, Ill.

Daniel Stahl, M. D., Quincy, Ill.

Edward Mead, M. D., Geneva, Ill.

H. S. Huber, M. D., Chicago, Ill.

David Prince, M. D., Jacksonville, Ill.

P. A. Allaire, M. D., Aurora, Ill.

J. F. Henry, M. D., Burlington, Iowa.

Jno. McLean, M. D., Jackson, Mich.

Edward Lewis, M. D., Jackson, Mich.

Ira C. Bachus, M. D., Jackson, Mich.

J. G. Conwell, M.D., Spring Arbor, Mich.

S. B. Thayer, M. D., Battle Creek, Mich.

E. Deming, M. D., Lafayette, Ind.

G. N. Fitch, M. D., Logansport, Ind.

G. W. Clippinger, M.D., Terre Haute, Ia

Elias Fisher, M. D. Waynesville, Ohio.



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## PART I.—ORIGINAL COMMUNICATIONS.

## ARTICLE I.

*Extirpation of an Abdominal Tumor of large size.* By DANIEL BRAINARD, M.D., Professor of Surgery in Rush Medical College, Attending Surgeon of the Chicago Hospital, &c.

John Meaten, Æt. 38 years, an Englishman, gardener, entered the hospital, April 5th, 1847, on account of a secondary venereal affection of the skin and a suppurating gland in the groin. His constitution had been greatly impaired by disease and remedies employed against it, although his general health was tolerably good. In addition to the syphilitic affection, he labored under a complication of surgical diseases which rendered his case one of much interest. He had an ancient unreduced dislocation of the left os humeri upon the dorsum of the scapula, and a large tumor of the abdomen. He was treated first for the bubo and constitutional disease; and these having been removed, attention was more particularly directed to the abdominal tumor.

It presented the following appearances: resting upon the right iliac region, it ascended to the right hypochondriac, encroached upon the epigastric, occupied the whole of the umbilical, and terminated upon the edge of the left lumbar region. It projected considerably, and appeared nearly as

large as the head of an adult. Its surface was hard, irregular, and insensible. It appeared to be placed directly against the abdominal wall, was very movable, and could be perfectly circumscribed on every side. It could be pressed upward so as in a great measure to be buried beneath the false ribs to the left side so as to distend the parietes there, and by embracing it upon both sides it could, in a good measure, be lifted from its situation.

Its history, as far as observed by the patient, was as follows: About six months previously, he first perceived it situated midway between the umbilicus and the crest of the right ilium. It was of the size of an orange, hard, insensible, and very movable. Since that time it has regularly increased in size, rapidly of late—fully one-third since his residence in the hospital.

*Diagnosis.*—In regard to its character and situation, we expressed the opinion that it was fibrous in its texture, and located in the omentum. Its fibrous nature was inferred from its great hardness; its origin and situation were arrived at by the method of exclusion. Thus, it was not difficult to ascertain that it resulted neither from the pelvis, kidney, liver, pancreas, or stomach, from its situation when first observed. It was as easy to infer, with great certainty, that it was not situated in the mesentery or closely connected with the digestive organs; as in either of these cases, it would have shown its effect upon the system by deranging the nutritive action. In short, a careful examination of the case and a consideration of the distinctive signs of the different tumors of the abdomen, and of the diseases of the organs situated in that cavity, were sufficient, as is usually the case, to indicate, with great certainty, the seat and probable nature of the disease.

*Treatment.*—In reference to this, there was room for more difference of opinion. Should it be left to itself? Should it be removed by operation? These were the alternatives; for medical treatment promised nothing, nor did any surgical means, short of its removal, give better hopes. Its rapid growth preceded the hope of its remaining stationary for a length of time. It must soon encroach upon the viscera and interfere with their action; and it was important that a de-



cision should be arrived at before adhesions and its size should preclude the possibility of relief. It was the patient himself who first seriously entertained thoughts of its extirpation. He was possessed of great firmness, with intelligence and a cheerful temper. After being told that an operation was practicable, although dangerous, he was not urged to or from its adoption; but, after some days reflection, he said that he wished to be operated upon, and that he had selected Monday, May 12th, for its performance.

*Operation.*—This was accordingly done on the morning of the day, with the assistance of Drs. Maxwell, Blaney, and Huber, and in presence of several physicians and the medical class in attendance upon the Hospital, as follows. The patient was placed upon a table, with the head raised, and was allowed to take a few inhalations of the ethereal vapor, which produced spasmodic action of the muscles of the back which continued for about a minute. (He had tried the inhalation the day before with the happiest effect.) These having subsided, and the tumor being pressed forward by assistants, an incision was made in the linea alba six inches before the umbilicus. The abdominal wall being divided, the omentum was brought into view, and on separating this in the interval of its vessels, the morbid mass exposed. Passing the finger around it, no adhesions were found, and where it was fully circumscribed above, the hands of the assistants still forcing it forwards, the patient made an effort and expelled it suddenly from the abdomen. It was immediately perceived that the pedicle of the tumor was composed of omentum, the vessels of which were thus greatly enlarged. A ligature was passed around it, and the tumor removed; but this was found insufficient, and the arteries to the number of eight were tied separately. The ligatures were cut close, the wound carefully cleansed, and its sides brought together and retained by stitches of interrupted suture and adhesive straps, and a bandage pinned around the body. About eight ounces of blood were lost during the operation, mostly from the first incisions. Including the dressing, the operation lasted about twenty minutes, and was well borne by the patient, who was little depressed by

it, talking cheerfully until it was finished. He was placed in his bed, and a full dose of opium administered.

*Evening.*—No pain. Pulse 100. Feels well.

MAY 13th.—*Morning.*—Has had hæmorrhage, apparently to the extent of six or eight ounces, during the night. Respiration frequent, with much mucous and sibilant rattle. Pulse 120, weak. Applied a sinapism over the chest; gave mucilaginous drink, with wine and nitre.

MAY 14th.—Feels much better. Pulse 100. Mucus rattle abundant. Little pain or tension of abdomen. Urine discharged regularly and of natural appearance. Has slept well. Continued counter irritation with a decoction of Senega as expectorant. Diet of soup and gruel, with toast water for drink.

MAY 15th.—Some reaction. Abdomen fuller and tender. Respiration hurried. Pulse 110. Has slept well. Urine natural. Gave a saline purge, with enemata of ol. ricini and ol. terebinth. aa 3i with mucilage. Towards evening had stools which relieved the tension.

MAY 16th.—Has rested well, and taken soup with some relish. Pulse 110, weak. Respiration frequent. Mucous in bronchial tubes accumulating. Abdomen full but soft, and not very tender. Counter irritation and stimulating expectorants continued.

*Evening.*—Is evidently sinking from accumulation of mucus in the air passages. Wine, with capsicum and external warmth, was made use of. He died on the morning of the 17th; being five days after the operation.

*Examination ten hours after Death.*—Abdomen little more tumefied than in its natural state. Wound adhered throughout nearly its entire extent. The small intestines near the wound, adhered to the wall and to each other by recently effused lymph. Other parts of the peritoneum presented a healthy appearance. Small intestines, moderately distended with gas, and exhibited considerable vascularity of their coats.

The veins around which ligatures had been placed in connection with the arteries, were of large size, and filled with coagulated blood, but presented internally no trace of inflammation. No hæmorrhage had taken place from the



ligated vessels. Stomach and kidneys healthy. Liver somewhat larger than natural, of a pale yellow color, and fatty feel. The pancreas was dry, firm, and indurated. No morbid growths or other diseased appearances were formed in the abdomen.

The cavities of the right side of the heart were distended with fibrinous concretions of extreme tenacity. The air cells were distended with serum, which flowed freely when they were cut. The right lung was extensively adherent by its pleura to the thoracic wall, and at the line of junction of the upper and lower lobes there was a spot about two inches in diameter, of a dark brown color, and entirely destitute of tenacity, being incapable of resisting the slightest touch. Both lungs were crepitant throughout.

The muscles of the entire system were firm, and in many places partially transformed to fibrous tissue. The tendons were thickened, rough, and adherent; and to the ligaments of the articulations at several points, were found indurated fibrous masses sufficient to impede materially the movements of the joints. In all the articulations of the hands and feet were found abundant chalky deposits. These affections of the joints, and fibrous and muscular tissues were doubtless the result of the ancient venereal affection.

*Examination of the Tumor.*—This, in size and form, strikingly resembled the heart of an ox. The base having been directed upward and to the right side. It was hard, irregular, and enveloped in part by omentum. On laying it open it creaked under the knife, was of a light gray color, very vascular at some points, and cartilaginous and bony at others. Along the back part extended an ossified piece, two inches in length, and branched in various directions.

Weight, three pounds ten ounces; length, nine inches; breadth, six inches; circumference, twenty-one inches.

*Remarks.*—In this case the cause of death seemed to be bronchitis, and the consequent accumulation of serum and mucus in the air cells and tubes. So far as the shock of the operation was concerned, the hæmorrhage, the subsequent reaction and inflammation, with the appearances on dissection, there is nothing to warrant the belief that death would have ensued independently of this complication.

The state of the constitution, enfeebled by disease and medicine was not the most favorable for resisting the effects of severe injury.

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ARTICLE II.

*The Pathology and Treatment of Periodical Fevers.* A paper read before the Rock River Medical Society, May 18th, 1847: By S. G. ARMOR, M.D., of Rockford, Illinois.

Observations on Medical Topography form a valuable feature of our Western Medical Literature. The effect of atmospheric vicissitude, of peculiar condition of soil and climate, and of the extensive decay of vegetable matter, resulting from the rich alluvial soils of the west, tend to the production of disease differing in type, in symptoms, in pathology, and consequently in treatment, from those of the same general class, as observed by emigrant physicians from the more eastern states. And it is a fact, well known to the profession, that in no forms of febrile diseases have we less extensive and carefully studied pathological observations than those of our periodical fevers of the west. Hence the necessity of the unwearied observations of those who would add to the common stock of this interesting department of our literature.

At an early period fevers were divided, arranged and systematized under various classifications, according to the supposed pathology of the disease. Galen first divided into essentials and non-essentials; one a specific disease *per se*; the other sympathetic or symptomatic of the essential form. At this time the doctrines of the solidists were warmly advocated and contested. Pinel, embracing the doctrines of the humoralists, contended, with all the philosophy of the times, that the solids were only secondarily affected; the primary source of the disease being located in the fluids of the body. This was the prevailing opinion of the ancients. At a later day, Stahl published to the world his theory of plethora, or fulness of vessels, and also a depraved condition of



the fluids, fever being the *vis medicatrix naturæ*, an effort of nature to get rid of the onus of disease. Hoffman, maintaining the principles of solidism, taught the doctrine of derangement of the nervous system, and spasm of the capillaries. Brown, the father of the Brunonian system, also embracing the doctrines of solidism, supposed that there existed a principle of *excitability*—that a proper amount of this was necessary to the production of healthy action—too much leading to the development of fever. Broussias, enthusiastically considering that *he* had unlocked the great secret, contended that the first impression is made on the mucous membrane of the alimentary canal, and taught his pupils to look upon this as the *primum mobile* and *ultimum moriens* of ALL disease. Louis, repudiating the exclusive doctrines of all preceding theories, contends that the fluids and solids are alike affected, and labors to establish what he calls “reciprocal action.” Thus, in the very onset of our investigation, we have a perfect democracy of opinion. Each, caught by the fancied beauty of his theory, has had his ‘day of glory’—but has only risen to be again ushered into oblivion. The progress of physiological and pathological science is daily pointing out the errors into which, in their *exclusiveness*, these eminent authors fell; while at the same time we are enriching our medical literature by the many valuable truths which they taught.

I do not purpose, at present, to inquire into the character of the agency, or combination of agencies, which give rise to those forms of fever peculiar to the middle, southern and western portions of the Union. As to whether this consists in the specific poison called *malaria*; or, as has been supposed, in the influence of a “moist warm air—air excessively moist considered in connection with its own temperature and the temperature of the human body;” or on “an impaired or deranged condition of the vital functions of the skin;” does not affect my present inquiry. Each or *all* of these causes may have an agency, either directly or indirectly, in the production of our periodical fevers; and by the term *periodical* I include remittent, intermittent, and congestive fevers, which often run into each other by impercep-

tible gradations, and are, indeed, mere forms or modifications of the same essential disease.

The pathology of these fevers has ever been a vexed question in medicine, both as to the remote cause, and to the primary impression of that cause on the organism. But we have good reason to suppose—in fact all analogies in the pathology of disease tend to show—that the agency, be it what it may, operates primarily on the blood, by changing its normal condition. From an investigation of the great system of nutrition, as connected with animal and organic life, it must appear evident that very many disorders to which “human flesh is heir,” consist in morbid alterations in the nutritive process. “Indeed,” says Carpenter, in his recent work on physiology, “the progress of physiological research obviously leads to the conclusion, that in every part of the living body there is an inherent and independent vitality, which enables it to grow and maintain its normal structure so long as it is supplied with the requisite materials, *and no longer*,” and the tendency which (happily for the progress of medical science) is now gaining ground, to seek in the blood for primary pathological changes, when there is an obvious general disturbance of the system, will doubtless lead to increased knowledge of the real nature of diseased states.

The next question which presents itself, is, what system is it which is principally influenced by the poison of the remote cause when mingled with the blood? That system appears to be the nervous one, and that portion of it especially, which presides over the *organic functions*, and to this pathological feature I wish particularly to direct attention.

I shall observe, for the sake of illustration, the distinction of the *cerebro-spinal* and *ganglionic* systems, so much insisted on by many physiologists, and especially by M. Bracket, in his very ingenious theory of fever. But in making the distinction, we must admit that the cerebral nerves have, to a certain extent, an influence over the organic sensibility; yet it will be at once perceived that this influence is an *indirect* one, because the viscera which perform the organic functions, do not receive their nerves from the brain, but from the ganglia. These ganglia supply the vital or nutritive functions,



and have been, with propriety, considered the aggregate of so many small nervous systems, which are the peculiar centres of the organic life; just as the brain is the great and only centre of the animal life. But while the animal life immediately fails on an interruption of the organic system, the converse of the proposition does not appear to be true to the same extent. Thus fœtuses without heads, *in utero*, possess an active organic life; they are frequently, at the time of birth, monsters in bulk. Many striking and incontestible proofs might be enumerated, of the co-existence of a suspension of the cerebral functions with a permanent action of the organic life. In fact the whole process of absorption, of assimilation, of nutrition, and of the secreting operation in general is effected without any direct dependence upon the animal system. But the inquiry may next arise, as to what relation the organic nerves sustain to the general *perversion* of all these functions. Our answer is: An irritable depressed condition of organic sensibility is the immediate result of a primary pathological condition of the blood; because the system of nutrition being arrested, the natural healthy stimulus of the organic nerves is withdrawn and hence the general functional derangement characteristic of fever. It has been contended, however, by a class of pathologists, and with much apparent plausibility, that the abnormal character of the secretions is not primary and essential, but in reality a *result* of the abnormal state of the blood, from which it is separated, and that the organ itself is still performing a healthy function in separating from the blood that which would be injurious. This proposition is doubtless too extensive and too broad a one. It is easy to conceive, and indeed rational to suppose that derangement of *healthy organic sensibility* is equally concerned in the production of faulty functional derangement of the secernant system; thus beautifully illustrating the doctrines of "reciprocal action" as taught by Louis. And to this law of relation, with the curative deductions therefrom, our attention should be particularly directed.

All the symptomatology of our periodical fevers, points to an adynamic condition of the nervous system as the most prominent and formidable lesion. Indeed, the very fact of

their *periodical* character throws much light on their pathology, for periodicity is characteristic of diseases of the nervous system. In the examination of a patient, we observe a dry, hot skin, increase of vascular excitement, and general functional derangement of all the secernant system. But these symptoms, it will be borne in mind, are secondary; they have been announced by chill, which is occasioned by impression made on the nervous system. We are led to the conclusion, therefore, that fever, as a *symptom*, is merely reaction from nervous prostration. Break down, from any cause, the nice balance existing between the nervous and vascular systems, and fever always follows. Take, for example, concussion of the brain. First, we have entire prostration of nervous energy, body cold and chilly, secretions measurably suspended; reaction eventually comes on, and fever, thirst, hot skin, dry mouth, in short all the symptoms of fever are present.

Post mortem examinations have frequently pointed out extensive structural lesions in these forms of fever; but the existence of these lesions by no means determined the true and original character of the disease; for the fever may run through its entire course *without* their existence. But if the paroxysms be not promptly arrested, it is not strange that local inflammatory action should become speedily developed during the progress of the fever. The harmony of function, and the equal distribution of nervous and vascular excitement are entirely broken up. One organ may be excited, another depressed; the heart and arteries excited, and the muscular system perhaps languid; increased activity of the intestinal exhalents, and diminished activity of the exhalents of the surface; copious secretions from the kidneys, and torpor of the liver. Thus, the proper balance is broken up, the result of which is an excited condition of the entire organism, and frequently the production of local inflammations.

In relation to functional lesions, the liver is found very uniformly complicated; giving, in consequence of the marked disorders of the biliary secretions usually present, the almost universal name of *bilious* to our remittent fevers of the west—a name highly objectionable, if we are to understand thereby that the fever depends essentially upon disease of



the liver, or upon vitiated bile as its proximate cause. The same objection applies to the names cephalitic, gastric, and enteric remittents, for they point out local lesions which are but accidents and consequences of successive paroxysms of congestion and reaction; yet they are unhappily, too frequently mistaken for the original basis of the disease.

Another frequent and often fatal complication, is inflammation of the mucous membrane of the gastro-intestinal canal. Drs. Gerhard and Stewardson have recorded a number of cases which occurred in the Pennsylvania Hospital in the year 1834, and again in the years 1838, 1839, and 1840, in which this lesion was uniformly present; sometimes resulting in melonation, and changes in thickness, consistence, and color, variously combined in different cases; yet in no case was there disease of the elliptical plates, or mesenteric glands, or glands of Peyer and Brunner, occurring in the typhoid fevers of the New England States. It is not strange, however, that gastro-enteric inflammation becomes so frequently a complication in our periodical fevers, for, reasoning *a priori*, and from anatomical structure, this lesion would become readily developed as a secondary pathological condition during the progress of the fever. And the fact should never be lost sight of, that this local phlegmasia is increased by each successive paroxysm. These local inflammations grow out of the pathological condition to which I have alluded. In the first place congestion, or the cold stage, is merely imperfect reaction, and reaction always supposes primary prostration. This broken down condition of nervous energy results from the virulence of the remote cause. The functions of the capillaries being also morbidly impressed, the blood is consequently thrown into the centre of the circulation; and the heart, dependent for its action on nervous energy received from the brain, becomes enfeebled in its action, and the result is engorgement of blood in the portal circle. Having no valves, the hepatic veins and their radicals dispersed through the liver become engorged; the *vena portorum* and its radicals also become congested; then the abdominal viscera fall into a state of congestion; all this resulting from the want of valvular structure and from debility of the right side of the heart. Protracted venous congestion, by the

excitement of distension may become the cause of the active variety. Hence disease of the entire portal circle constitutes the essential anatomical characteristic of our remittent and intermittent fevers.

Finally, as corroborative evidence of the pathological views here presented, an inference may be drawn from the remedies successfully employed in their cure. In intermittent diseases purely neuralgic in character, we resort to those remedies which are anti-periodic and sedative in their effects; and does it not throw light on the true character of periodical fevers that the same remedies, when properly administered, have the like effect in breaking up the chain of morbid action? By the concurrent and almost unanimous testimony of the profession, the preparations of cinchona, variously combined with anodynes, are found to be the most specific in arresting both forms of disease; and it is yet an interesting inquiry as to whether we may not find in other remedies, whose influence is exclusively and almost specifically directed to the nervous system, powerful remedial agents in the cure of intermittent fevers.

If the true theory of periodical fever be such as I have represented it, the indications to be accomplished in their treatment are mainly two. First, to prevent the recurrence of the paroxysms; second, to moderate the violence of the local symptoms, and promote general functional harmony by propar depuratives. I speak here in general terms of those endemic forms of fever peculiar to a western and southern climate, and from the simple intermittent to its more malignant forms, and from the overpowering congestive, seen in the cold plague of the Mississippi, to the symptoms marking the yellow fever of the southern states. Of course the intelligent physician will modify or regulate his treatment according to the type the fever may assume during its progress, or the inflammatory action which may supervene. The fact of the intermittence or periodicity of all these forms of fever is well established; and the thought upon which I insist, with reference to their treatment, is, that in all forms of fever of a paroxysmal character, (and it is only of such that I speak,) the grand, out-standing, prominent idea to be cherished is, to prevent the repetition of paroxysms. In fact



the early and judicious use of quinine, opium, capsicum, and other stimulants and sustenants of the brain and nervous system in our more malignant periodical fevers, before they become complicated with extensive local inflammation, is the very point on which the case is to turn for life or death. And the success of this treatment, in preference to the actual depletory system, is certainly very abundantly established. By it we immediately arrest the paroxysm, and with the arrest of the paroxysm, we generally have an improvement of the symptoms. The pulse, instead of being small, quick, and struggling, becomes fuller, softer, more distinct and natural; the skin assumes a more healthy condition, a free perspiration frequently forming a crisis to the fever; and when followed by proper alteratives, depuratives, tonics, and laxatives, the tongue improves in appearance, the secretions become restored, and the patient rapidly recovers. But if we wait, before adopting this practice, as recommended by a large majority of our most popular authors, until the secretions are restored, the pulse soft, and the febrile symptoms abated, we will wait until struggling nature, unaided, has overcome the disease; or until, in consequence of protracted congestions of organs whose functions are essential to life, inflammation shall have supervened which we may never be able to control.

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ARTICLE III.

*Observations on Milk Sickness.* By Dr. J. H. McNUTT, of Annapolis, Parke County, Indiana.

Much has been written in the form of communications to the various Medical Journals, respecting the disease known as *Milk Sickness* or *Trembles*, by our western practitioners; and some of the papers drawn up evince much careful investigation with regard to that formidable malady that may almost be classed with the opprobria medicinæ, and yet, notwithstanding the ability with which the subject has been handled, very little is known concerning the nature and pa-

thology of this disease, that can be relied on, in a clinical point of view ; but, like all other unsettled matters in pathology, each practioner has his own theory from which he draws deductions that, for a time, satisfies his own mind.

To review all the various and discrepant opinions that have been held respecting the cause of milk sickness, would extend this article beyond a practical length. I shall only notice some of them briefly.

I believe the first notice, in the form of a monograph, we have of milk sickness may be found in the Medical and Philosophical Lyceum, page 87, vol. 1st., by Dr. Drake. The symptoms of what he calls a new disease, are in part thus given : " It almost invariably commences with general weakness and lassitude ; a strange propensity to sleep occurs. The skin is cool, pale, and frequently affected with clamminess, a disagreeable burning sensation in the stomach and hot evacuations—the thirst is urgent." The above is a very good description of this disease, at that period ; and so far as treatment was then concerned it was mostly left in the hands of the nurses.

There have been three theories held in relation to the cause of milk sickness.

1st. That it is propagated by a vegetable poison eaten by our domestic animals, and introduced into the human system by eating the fresh milk or butter.

2d. That it is of atmospheric origin, and governed by the same laws that govern all malarial diseases.

Lastly, that it is a mineral poison, held in solution in the springs in certain localities.

Each of these theories has had its advocates, and I only notice the discrepancy of opinion with regard to the pathology of milk sickness, not for the purpose of entering the arena of controversy, but to stimulate all to the proper investigation. I will merely give my own views, aided by the lights that an experience of some years' practice in a milk sickness region has, from time to time, shed on the obscure subject, however different these views may be from those entertained by Dr. Wright as published in the Western Medical and Physical Journal, or to the mineral hypothesis of Seaton, Taylor, &c. I am indebted to that able pathologist,



Dr. Drake, for much valuable information as to the probable cause of milk sickness. The readers of the Western Medical and Surgical Journal are familiar with his views and as they are in accordance with my own, I more readily refer to them. I assume the ground in the premises that the disease is propagated by a vegetable poison. And here I might enter into a lengthy argumentation of hypothetical reasoning, but in doing so I would only be adding my mite to the many conjectures that run through our medical periodicals. If I can add anything that will be of advantage in a curative point of view, I shall feel satisfied with the effort.

I believe that milk sickness may, with a great deal of propriety, be divided into three stages, viz.: The initial, the febrile, or stage of excitement, and the congestive or stage of collapse, which are characterized by the following symptoms: In the premonitory or forming stage, there is not much disturbance in the circulation; it is nearly normal. There is rather a loathing of food; the thirst is not very great; the eyes show more clearly in this stage what is going on than any other pathognomic means we have. They have a dull heavy appearance as if covered by a pseudo-membranous substance. This stage generally lasts from 24 to 48 hours; and when the proper means are used, the disease may be frequently broken up in limina.

In the stage of excitement, the symptoms are more urgent than in the first stage. There is an increased action in the heart and arteries, with a tendency to coma. The eyes, in addition to the dull and heavy appearance above indicated, show an increased vascularity in all their capillary vessels. There is also a great deal of gastric irritability, with an almost indomitable disposition to retching and vomiting without being able to eject anything from the stomach, except a white glairy matter. There is a peculiar fetor about the breath that is usually developed at this time, which is one of the best diagnostic symptoms we have, and which, of itself, is sufficient to render the disease *sui generis*. This, to one of sensitive olfactories, who is accustomed to the disease, need never be mistaken. As is generally the case when there is gastric irritability there is disturbance in the action of the bowels. Here there is the most obstinate constipation,

which is one of the principal difficulties in a therapeutic point of view. This period in the history of the disease is also characterized by extreme restlessness and jactitation, and what authors term a general feeling of malaise. The thirst is urgent, and the patient loudly calls for cold water which, for a few minutes, seems to be very grateful, and to allay the gastric distress and that intolerable burning sensation in the stomach; but even the water is retained but a short time until it is ejected from the stomach, and an urgent call for more, which is all the patient craves. This stage frequently lasts two or three days without any appreciable difference.

In the congestive or last stage, in addition to the symptoms already detailed, there is cold extremities; the skin has a dark livid and corrugated appearance. The superficial vessels seem collapsed as if entirely empty. The whole surface is covered with a cold clammy sweat. This stage cannot last long until a crisis takes place, either in convalescence, or the patient becoming moribund.

Having thus briefly glanced at the most prominent symptoms characteristic of the disease, I will close by giving what I consider the most efficient treatment; and first the following indications seem naturally to present themselves, viz.: to allay the gastric irritability, and thereby remove obstructions from the bowels; and secondly, restore the balance in the circulation.

The question comes up, what are the means that will best fill these indications? I might here remark that milk sickness is frequently complicated with other diseases. I believe it is a law that governs all diseases, that epidemics have an influence on such diseases as are propagated by local specific causes. Such amalgamation more frequently supervenes when we have milk sickness during the presence of our autumnal fevers. The same order will be observed in giving the treatment that was had in delivering the symptoms.

In the initial or forming stage, strict dietetic rules should be observed, and the bowels be kept in a soluble condition. Active physical exertion is known by all conversant with the disease to have a prejudicial effect. Hence it is



that cattle bought in a milk sickness region, although apparently healthy when collected, it is no uncommon thing for a number of them to take the trembles on being driven the first few miles.

The next is the stage of excitement; and as the lancet has, for a long time, been regarded as one of the most important curative means in all febrile diseases, the propriety of its use will be briefly considered *a nulla discrimina*.

Depletion with the lancet, in febrile diseases, has obtained and held the empire in medicine too long. Without stopping to inquire what is the grade and variety of fever we are treating, and what are the indications we expect to fill by this sanguinary treatment, I am not of that school who believe it to be reprehensible in all diseases; but we should never bleed where there is fever, guided alone by the simple fact that we have done so before, in some variety of fever, and that, too, with advantage to our patient. Here we have one variety of fever, and that, if not primarily congestive, with at least a strong congestive tendency throughout its course. Now the question comes up, what are the therapeutic means that will best increase the centrifugal action of the heart and arteries? All will give the same response, whether guided by experience or sound pathology. More might be said on the point of the treatment; but since pathology has shed its benign influence on our science, empiricism has fallen before its rational inductions.

Emetics are sometimes highly useful means, especially in that variety that is complicated with our autumnal fevers. Here the treatment might be premised by a mild emetic of pulv. ipecac. to unload the prima via. Having done this, let us dispense with the further use of this class of agents, and the decided preference is given to ipecac. as having less tendency to produce prostration than most other articles of this class.

Cathartics stand at the head of our remedial means; and, as in many other diseases, a proper choice of the articles we use is of the utmost importance. When called to an ordinary case of this disease, if there is much gastric irritability, the first thing is to allay that; and for the purpose twenty or thirty gr. tinc. opii. given in the effervescent

draught, will have a happy effect; or one fourth gr. of the acetate morphia, after which give twenty-five grs. sub-murias hyd. If it should not move the bowels in three or four hours, give at least two ounces ol. ricini, in conjunction with twenty or thirty drops of spirits of turpentine; and if that should be either rejected by the stomach or fail to operate, repeat it at intervals of three or four hours until the bowels are freely moved, assisting by suitable enemata. Much may be done at this stage by perseverance. Let all who have charge of cases of this character reflect that there is here no time for temporising. After having freely evacuated the bowels, the next thing is to keep up the alvine ejections; and this is best done by the frequent administration of castor oil and spirits turpentine, as above indicated.

At this period, the disease frequently passes into the third stage: and here tonics or stimulants are imperiously demanded, and I believe no class of tonics will answer a more valuable purpose than the sulphate of quinia. There is more analogy between milk sickness at this stage and congestive fever than any other disease; so much so, indeed, that some very respectable members of the profession have denied the existence of milk sickness altogether, and treated all such cases as congestive fever.

I cannot better illustrate the happy effects of the sulphate of quinine than by giving the history of the following case:

Mrs. G., aged 30, of strong constitution, was taken rather violently with the milk sickness, accompanied with all the usual symptoms. Was seen by me on the third day after attack, at which time the disease had passed into the second stage. There were some cerebral disturbances; constipation of the bowels, and constant efforts to vomit. Thirst great with considerable general arterial excitement. A large blister was laid over the epigastric region. She was ordered the following: sub-mur. hyd., twenty grains, and to be followed by oleum ricini and spirit. terebinthina. Next day visited her. Her bowels had acted slightly. All the symptoms greatly aggravated. Almost furious delirium. Extremities cold. Patient in the third or congestive stage of the disease. And here I would remark that I regarded the cephalic derangement as more dependent on congestion of the



brain than on inflammatory condition; and, to use a common expression, I must acknowledge that I felt rather stumped.

My patient was evidently sinking. Tonics or stimulants must be used—their use contra-indicated in consequence of the cerebral derangement. I had often thought of the quinine as being a good equalizer, and as admirably calculated to overcome the congestion of the heart and large vessels and here was the case. I ordered the following:

R.—Pil. Hyd., grs. xii;  
Quinia, grs. xxiv;  
Mic.—Fiat Pilulæ viii.

One of these to be given every hour until all were taken. These were given through the night; and in the morning I had the gratification of finding my patient improved. Her bowels had been freely moved, bringing away dark bilious evacuations. I ordered mucilaginous drinks through the day, and at night the following, viz.:

R.—Pil. Hyd. grs. viii;  
Sulph. Quinia, grs. xviii;  
Mic.—Fiat Pilulæ vi.

Of these, one every two hours, and to be moved off with the castor oil and spirits of turpentine. This treatment was continued until the balance in the circulation was restored; after which the patient was ordered to keep her bowels open with castor oil and turpentine, and a light farinaceous diet.

I have since treated other cases in the same manner, and find the quinine a most valuable adjuvant in filling one indication in the treatment of the disease, viz.: restoring the balance in the circulation, and overcoming congestion.

Blisters are perhaps next in importance in the treatment of this disease. Where there is much disposition to vomit (which is generally the case), their early use is clearly indicated. A large blister should at once be laid over the region of the stomach; and should the extremities become cold, blisters to the ancles and sinapisms to the wrists are indispensable. Enemata are highly useful means in over-

coming the torpor of the bowels which is characteristic of the disease. The bowels are frequently costive from the fæces becoming indurated in the rectum; which may be overcome by the solvent effects of injections. There are other articles that may be used with advantage in the treatment of the disease. The effervescing draught is very grateful, but, as was before remarked, our reliance is to be placed on a few remedies. Such is a brief history of the disease, with what I consider the best treatment hitherto pursued.

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ARTICLE IV.

*Inflammation of the Brain.* By G. N. FITCH, M.D., Professor of Institutes and Practice in Rush Medical College, Chicago.

Among not the least of the difficulties which our profession encounters, is the variation of disease of the same organ in different latitudes, and under the different circumstances of age, constitution, previous habits and the thousand inscrutable ever-varying causes to which we are subjected. These variations form exceptions to any rule, and are often more numerous than the cases under the rule itself. Hence the necessity, if possible, of becoming familiar with all. Many of the exceptions of general occurrence are well known, and so well described in books of practice that a mistake in diagnosis can rarely occur; while others, either from being confined to certain localities or from being less defined in their nature and with symptoms more obscure, escape the observation of standard authors and are left to be detected as best they may be, if at all, by those under whose care they may fall. Such detection, in some cases, and among others in the case of the disease under consideration as it is found here, so far from being aided by the descriptions of standard medical authors, is greatly embarrassed inasmuch as they enumerate groups of symptoms as always present and as necessary to constitute the disease, but



one or two of which are ever found. The presumption, therefore, upon the part of the practitioner, naturally is, that he is dealing with an anomalous disease, instead of one in the treatment of which he would meet with but little embarrassment, did its written history enable him to diagnosticate it. That the disease in question, in the same form under which it not unfrequently prevails here to considerable extent, is not found elsewhere, is scarcely credible. Yet its prevalence to whatever extent in other localities in no manner benefits the profession here so long as the principal source from whence its junior members must derive their information, the books, lend them none but doubtful assistance.

Under the head of "*Inflammation of the Brain*," we include inflammation both of the substance and meninges, making no effort to distinguish between them. Indeed, such effort, even if it were successful, would be attended with no practical benefit, as the treatment, with our present knowledge, would be the same in both cases.

We will first briefly examine its *Diagnosis* as given by some of our standard writers when we shall have the advantage of being able to compare the different descriptions with each other and with the disease as it presents itself at the bedside. Several of these descriptions will individually rather embarrass than aid one in his diagnosis, but all collectively may assist in arriving at some conclusion relative to the absence or presence of the disease.

Cullen's synopsis is, "burning fever, pain in the head, redness of the face and eyes, intolerance of light and sound, wakefulness, fierce delirium, or low muttering delirium."

This definition may, for aught we know, be a faithful picture of the disease as it occurs in some rare cases though such cases must be confined mostly to hot climates. Only one of the symptoms thus enumerated has been found uniformly present, viz.: "pain in the head." Eberle gives "synocha, fixed and intense throbbing pain in the head, face full and flushed, eyes inflamed, intolerance of light, hearing at first morbidly acute, and at last almost complete deafness, furious delirium from the commencement, and constant wakefulness."

This is a little enlargement upon Cullen's synopsis, but by

no means an improvement. It is more objectionable than his from which it was evidently mostly borrowed, making "furious delirium from the commencement" a symptom, whereas Cullen does not state when it occurs, leaving it to be inferred that it may take place at any later period of the disease, which is a fact. Of the many cases in our note book not one was accompanied with "furious delirium from the commencement," although occasional transient mild delirium was present in several from an early stage, and in some was the first symptom to attract attention. Goode's definition is the same with Cullen's except fever, which he drops.

Armstrong's diagnosis is worthy more extended notice from its approximating the appearance of the disease, as it has presented itself to us, much nearer than those we have mentioned. He attempts no synopsis, probably from finding none such of general application.

1st. "Some pain, throbbing, or other uneasiness in the head." He proceeds to say that the pain varies according to the duration and intensity of the disease, is more acute when the membranes alone are inflamed than when the substance of the brain alone is affected, and that it is more distinct towards evening. The latter is almost uniformly true. He farther tells us the pain is increased by the erect position, by light, noise, coughing, and shaking the head. All this is strictly in accordance with our observation, except the increase of pain by light, which we have more rarely observed, and which, when present is not so great as that from noise, coughing, or shaking the head. In later stages, the pain is not so much complained of, *if at all*, in consequence of diminished sensibility, or torpor.

2d. "More or less unnatural dropping of one or both eyelids." Once only have we seen this.

3d. "Cornea more glassy or glaring than natural, while at the same time the intellectual faculties are probably duller." We fancy but little reliance is to be placed in these symptoms.

4th. "Pupils contracted, variable, or dilated." "Variable" best expresses the condition of the pupil. Sometimes in the first stage, it is contracted; in other cases it contracts and



dilates alternately, with great rapidity. In later stages it is usually dilated, though not permanently so, unless there is effusion; that is, it will obey the stimulus of light.

5th. "Conjunctiva generally streaked with red." We have noticed this, though not "generally."

6th. "Wakefulness in the first, and heaviness in the last stage." These symptoms occasionally occur, though neither of them is uniformly present. In some cases the heaviness amounts to torpor; in others the patient is merely dull and fretful. When wakefulness is present it is not unfrequently accompanied with great restlessness, as tossing in bed, getting up or otherwise constantly changing posture.

Armstrong makes the mental symptoms—

1st. "Incompetency; an inability to fix the mind on anything or to reason;" and

2d. "Reverie." The last is not unusual; being only occasional, however, in any one case, and generally towards evening.

3d. "Delirium"—but he very correctly adds "delirium seldom occurs in this country [England] before the second, third, or fourth days of the attack." This is precisely our experience in Indiana. Armstrong farther adds—"Delirium does occur, however, in hot countries, at the very outset of the attack." Undoubtedly, and hence the synopsis of Cullen and Eberle, *et id omne genus*, who have copied their descriptions from each other and from tropical writers. He proceeds to enumerate, among other symptoms of the earlier stage, "usual throbbing of the carotid and temporal arteries," increased heat of scalp, face and neck, an irritable stomach or torpid bowels or both. The same remark can be made of these as of his third enumeration of physical symptoms already mentioned.

When a fatal termination is approaching (his second stage) he gives the following as the symptoms, viz.: "Diminution of sensibility." Of one class of cases this is true; the patient becoming more and more heavy until perfectly stupid and insensible. "Pupils first dilated, then immovable." "Patient has a vacant stare or squint." The stare we have often seen, but strabismus is rare in adults. "Pulse first slower then quicker." This change is usually very manifest.

“Subsultus and difficult swallowing.” We have never seen the first of these except in cases of long standing, which had assumed a somewhat chronic form, and the second only when a consequence and accompaniment of convulsions. “Convulsions” are likewise mentioned as a symptom of this stage. They are not uncommon in children, but rarely occur in adults, except at a late stage, and indeed in but few cases then.

Mackintosh first gives Cullen’s general definition, and adds that after the continuation of these symptoms for a day or two “coma steals on, followed by partial or general convulsions and death.” He proceeds: “This case,” (a case answering Cullen’s definition,) “is the rarest case to be seen in practice,” and wonders that Cullen, in drawing out a description of the disease, should have adopted it. In this climate such a case is truly rare, and Cullen’s synopsis, so generally adopted and copied, has led to much confusion and malpractice. Mackintosh’s description of the disease under the various forms and circumstances under which he has seen it is valuable, as it enables the physician to detect the same morbid affection under entirely dissimilar trains of symptoms.

Doct. Elliotson (Pract. Med.) enumerates as the prominent symptoms, constriction across the forehead, throbbing pain, increased sensibility, *delirium “ferox,”* pyrexia, full, hard, and accelerated pulse.

Doct. Watson, (Pract. Phys.) and Doct. A. Crawford (Cyc. Pract. Med.) give much the same prominent symptoms. All these gentlemen admit variety in their appearance, but aver the above to be most usually present.

We will now describe the disease as it has repeatedly presented itself to us within the last thirteen years, premising only that its usual period of occurrence is during the months of January, February, and March.

The patient complains of headache, generally *quite severe*, in some part of the frontal region; perhaps confined to one spot, as over an eye, or more diffused, and accompanied with a sense of heaviness or fulness in the head. The pain is increased by coughing, sneezing, or sudden motion (shaking) of the head, and by the erect position. In some cases there is a chilly sensation after the pain has continued a longer or



shorter period, followed by its increase. There is very little if any intolerance of light or noise. The nostrils are early found to be unnaturally dry, and the patient complains of their being "stopped up." The appetite not disturbed, though the tongue is slightly coated. The pulse may be somewhat accelerated with other mild feverish symptoms, though as often, perhaps more frequently, the pulse is slower than natural, with increase of fulness. The pain in the head is increased towards evening, becoming sometimes excruciating, with febrile exacerbation. The patient does not sleep well. Towards morning there is a remission of pain and fever, and a disturbed slumber. Hence the disease is not unfrequently mistaken for and treated as a remittent. These symptoms, without any alteration of the pupil, or any delirium, may continue from one to three or four days, the headache rather increasing, but with little change otherwise. The stomach, in some few instances, becomes irritable at an early period of this stage; in others, and the greater number, it is not disturbed at all. After the continuance of the disease thus, for the above mentioned period, if not checked by appropriate treatment, one of two changes manifests itself.

The patient either complains less of pain, becoming drowsy, and the drowsiness gradually increasing to coma; pulse, even if before accelerated, becoming slower; eyes half closed most of the time, and when open staring, but in such manner as to evince want of consciousness; pupil dilated, though still obeying the stimulus of light until a short time prior to the fatal termination, or it may be, until this time, rapidly changeable, alternately contracting and dilating. Unfavorable symptoms increase with more or less rapidity. The coma becomes complete; the pulse again rapid and feeble; the extremities cold; and the patient sinks with or without convulsions.

We said one of two changes occurred—either the above or the headache becomes from bad to worse, until the patient is observed to be delirious—in common parlance, "flighty." The delirium soon becomes furious, with flushed face and wild eyes. The patient struggles incessantly to rise from bed, or to escape from those about him; or he tosses and rolls from side to side of the bed, seldom speaking. These

furious muscular exertions continue until he is completely exhausted, and perhaps dies before his last struggle has fairly ceased; or the struggles become weaker, cease, and are followed by coma of short duration, and death.

In some cases (very few) after the continuance of headache as described, delirium of a milder character supervenes, the patient only occasionally evincing decided delirium. He will talk irrelevantly; or perhaps at intervals endeavors to leave his bed or his house without any assigned reason. Next follows coma, or most frequently after this form of delirium, convulsions will precede a fatal termination.

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ARTICLE V.

*Inquiries and Objections in regard to some parts of a communication from Dr. Henry, on the Treatment of Fevers and Inflammations without Mercury.* By Dr. URI P. GOLLIDAY, of Kickapootown, Illinois.

In the last number of the last volume of the Journal there is a communication from Dr. Henry on the treatment of fevers and inflammation without mercury, in which opium, in doses of four to six grains is highly recommended, not only in fevers but "in the treatment of all acute pneumonic affections."

Although the opiate treatment of various modifications of febrile and inflammatory disease can scarcely be said to be a new one, as notices of its value have occasionally been brought before the profession for several years past; yet, in the *doses* (four to six grains) spoken of, there may be but little doubt of its originating with Dr. Henry.

Speaking of the treatment of coryza, Dr. Christison says "for twenty years I have been accustomed to see it stopped at once by a full opiate given on the first day of its appearance—during the same period I have often seen a common catarrh without fever, cut short in like manner, if taken on the first, second or perhaps even the third day." The doctor



also names *Febrile Catarrh*, (meaning, I suppose, mild acute bronchitis,) *Epidemic Influenza*, and acute internal inflammations, with some explanatory modifications in the same category. (See Edinburgh Month. Jour. of Med. Sci., February, 1841, as quoted by Brathwaite's Retrospect, part 3, p. 45.)

Dr. Sobernheim, also gives us a summary of the diseases in which he found opium beneficial, and names intermittent fevers when offering a nervous character; inflammations of membranous, glandular, and sensitive organs; rheumatism and gout; catarrhal complaints, &c., &c.; but with the opium he combines antimony and mercury in the treatment of catarrhal diseases. (Rankin's Abstract, as quoted by Western Journal, December, 1845.) Professor Williams, of the University College, London, recommends it in doses of two or three grains of the aqueous extract, or from thirty to sixty minims of the liq. opii sedativus, or of Squire's tincture of the bi-meconate of morphia. But he says this plan can only be adopted where the bleeding has been sufficient to affect the action of the heart, almost, if not quite, amounting to syncope. (See Dis. of Respiratory system, Ed., 1845, p. 297.)

From these quotations (and their numbers might be very easily increased) it appears evident that the general plan is a good one, and whilst we have heretofore, and expect hereafter, to adopt it in all cases of fever where it is not contraindicated by a tendency to disease of the brain, yet, with all deference to Dr. Henry, we would wish a little more light on the subject before we would unhesitatingly adopt it "in the treatment of *all* acute pneumonic affections."

The doctor very modestly observes—"When the practice receives the partial sanction of such names as Stokes, Bell, and Griffin, I shall expect that the suggestions of an obscure country practitioner will secure from the profession a sufficient degree of consideration to induce a trial of the remedy." But, notwithstanding this array of great names, there are some "philosophical theories" that interpose so as to prevent a too hasty adoption of the plan in all cases. Although I am of opinion that nosological distinctions and definitions have done much to impede the progress of practical medicine, and that an everlasting theorising in reference to the therapeutical application of remedies, may only "darken

counsel by words without knowledge," yet I am persuaded we cannot wholly divest our minds of "theories" in the application of remedies to the cure of disease, especially when the physiological effect of any article in question may have been previously ascertained with some considerable degree of certainty. It is worthy of remark, that those diseases in which the opiate plan of treatment is most highly recommended, are those involving the nervous system more or less, and, as Sobenheim expresses it, of the membranous, glandular, and sensitive organs; and whilst we might include intermittent fever, coryza, dysentery, pertussis, &c., in this cation, we might at the same time be disposed to exclude diseases of the brain, those involving the parenchymatous structure of the lungs, and all others where there was a tendency to congestion of blood.

Pareira says—"From the effects of opium on the cerebro-spinal system the following inferences may be drawn:

"1. That it is an objectionable agent in apoplexy, phrenitis, and paralysis.

"2. That under proper regulations it is a remedy which may be used to stimulate the cerebro vascular system," &c., &c.

"A knowledge of the effects of opium on the organs of respiration leads to the following conclusions:

"1. That this agent is contra-indicated in difficulty of breathing, arising from a deficient supply of nervous energy as in apoplectic cases; that it is improper where the venous is imperfectly converted into arterial blood; and, lastly, that it is improper in the first stage of catarrh and peripneumony, both from its checking secretion, and from its influence over the process of arterialization." (*Materia Medica*, pp. 697, 699, vol. ii.)

From some experiments made on animals by W. H. Judd, Esq., and abridged from the *Med. Bot. Transactions* by Braithwaite's Retrospect, part i, p. 58, the following "comparative view of the effects and changes after conium and of those after opium" is derived:



## CONIUM.

Brain unnaturally free from blood; ventricles almost dry.

Lungs empty of blood.

Stomach, its villous coat and œsophagus white.

Right side of the heart gorged by dark blood. Left empty.

## OPIUM.

Brain gorged by blood; ventricles full of serum.

Lungs so full of blood that it runs out in a stream on cutting them.

Villous coat and œsophagus red.

Heart's cavities all containing blood.

This is but a part of the comparative view, but enough for our present purpose; the reader is referred to the citation above for the balance, and for some very interesting remarks of Mr. Judd.

From these experiments we learn that the brain and lungs are full—are gorged with blood, from the use of opium. That such a state of these organs obtains more or less in man when a full dose of opium is taken, may be easily inferred from the fact that, with a more laborious respiration, there is a sense of fulness and tension in the chest and in the head; and in many cases there is increased redness of the face, with a swollen and turgid appearance of the vessels—in a word, there appears to be an excitation of the whole cerebro-vascular system.

As said above, we cannot always wholly divest our minds of “theories” in the application of medicines to the cure of disease; to do so in the present state of medical knowledge, would be to give medicine without reference to the pathological condition of the patient, or the physiological effects of remedies, an empiricism so gross that no man of feeling or honor could engage in it.

In pneumonia, the inflammation, engorgement and hepatization, in their different stages and modifications, constitute the disease or the results of a diseased action, which the physician wishes to remove. With this object in view, he would hesitate to use an article, proposed as the chief, or even as a very considerable part of the means of cure, or indeed in any other way than as a palliative under certain circumstances; when the experiments on animals, and the sensations produced in his own person by its use, make him believe it would cause at least one (and of course aggra-

vate the others) of those very conditions constituting the diseased action he wished to remove.

These considerations form some of the reasons why, without further knowledge on the subject, I would fear "to give the practice a trial" "in all acute pneumonic inflammations."

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#### ARTICLE VI.

*Case of Rupture of the Uterus—Recovery.* By Dr. JOHN S. DAVIS, of Dayton, Indiana.

On Monday morning, December 28th, 1846, I was summoned to attend a parturient female, of robust constitution, who had had premonitory symptoms of labor (her sixth pregnancy), some three days in charge of another practitioner. The pains were slight and irregular until Sunday evening, when they suddenly became regular, strong, and expulsive; os uteri dilated; vertex presented; waters drained off and pains continue to increase for some two hours when they suddenly ceased, as the patient expressed "by flying all over her." I found the patient, at 6 o'clock, A. M., free from pain, some nausea, pulse accelerated, weak, and small, uterine globe absent, abdominal parieties flaccid, and abdomen somewhat tender on pressure. On examination per vaginam, in a recumbent posture, I could not reach, with the index finger, the presenting part of the child. Accordingly I had my patient raised to her feet, when I felt the head of the child through the uterine parietes, resting upon the pubis (I found, after delivery, quite a depression in the left parietal bone where it had lodged upon the pubis). The examination was imperfect, as the patient could remain on her feet but a short time, as she became faint and sick. I expressed my fears of the nature of the case to the attending physician, and he thought it impossible, and we gave her the usual doses of ergot, which brought on slight uterine contraction, supposing the difficulty might depend upon



atony of the uterus. I now directed the patient to be laid with the perineum free of the edge of the bed, and introduced the hand with the view of bringing down the feet and delivering. I passed the index finger into what I supposed was the os uteri, soft and flaccid, immediately above the symphysis. when my little finger caught a loop of the cord in the hollow of the sacrum. I now directed my attention to this anomaly, when, to my astonishment, I found the os uteri high up in the hollow of the sacrum, with a loop of umbilical cord passed through it. The nature of the case now presented itself. The head of the child had passed into the cavity of the abdomen, through a rupture of the anterior wall of the uterus reaching that portion which looks into the vagina, whilst the body remained within the uterus. I continued the examination, till I learned the os uteri was sufficiently dilatable to admit the hand when I withdrew it and informed the attending physician and friends of the patient of her alarming condition. What was now to be done? We could scarcely hope to be able to return the head within the uterine cavity. However, we resolved to make an effort as no other alternative was left but the Cæsarian operation. I accordingly dilated gently the os uteri and passed my hand within and firmly grasped the neck of the child with my fingers against one shoulder and thumb the other, (the palm of the hand looking to the face of the child) and by pushing somewhat forcibly upward and backward, I succeeded in replacing the head within the uterine cavity. I now placed the head in the right iliac fossa, searched for and brought down the feet and soon delivered my patient of a still born child. The uterus contracted pretty firmly upon the placenta and membranes by the assiduous application of gentle friction by the attending physician, and were expelled in due time by the uterine contractions alone. We now placed our patient carefully in bed at 11 o'clock, A. M., gave an opiate and ordered a dose of sulphate of magnesia to be followed in a few hours with another, if the bowels were not moved, and returned home with directions to be sent for should peritonitis supervene before our next visit in the morning. When we arrived at eight o'clock we found our patient in high excitement, which had come on at daylight, with full bound-

ing pulse, hard and frequent, face intensely flushed, and abdomen tender and much swollen, bowels freely moved and unable to urinate. Her arm was tied and blood permitted to flow till a decided impression was made upon the circulation. Urine drawn off with the catheter, and tartarized antimony as largely given as the stomach would bear. She was freely bled again in the evening till the pulse was brought down. Urine drawn off, and antimony continued through the night.

At eight o'clock on Wednesday morning, the condition of our patient was becoming worse—pulse more frequent (one hundred and twenty beats in a minute) and reduced in volume; abdomen more distended and soreness increased; face still flushed and bowels freely moved. We now gave—

R.—Calomel, grs. xx;  
Opium, grs. iii,

to be repeated in eight hours—applied evaporating lotions to the abdomen, drew off the urine, and returned home.

At our evening visit we found the patient still worse—pulse in frequency, abdomen more swollen, and soreness so much increased that she could not bear the weight of the hand upon the abdomen. The bladder was again emptied and medicines continued.

On Thursday morning the symptoms were becoming more alarming, pulse more frequent and intermittent at times and smaller in volume, and the tongue which had presented nothing unusual had now become very dry. In the evening copious bilious discharges from the bowels supervened. Calomel discontinued and opium given alone. Urine again drawn off.

On Friday morning the bowels still moved freely, the discharges serous and frequent; pulse frequent, intermittent, and feeble; abdominal swelling and sourness subsiding.

Things continued pretty much in this condition till Monday morning—abdominal swelling and soreness subsiding; the pulse at times more frequent, feeble, and intermittent; the bladder unable to evacuate its contents, and serous discharge still from the bowels—when the symptoms seemed



to improve; pulse became slower and fuller, and not intermittent; a abdominal swelling and soreness rapidly subsiding; bladder resumed its functions, and tongue more moist and face less flushed. Our patient continued gradually to improve for some days when she was attacked with phlegmasia dolens in one limb; it was a slight attack and readily yielded to a mercurial purge, followed by aperients and fomentations to the affected limb. It is proper here to observe that the breasts secreted no milk. After the subsidence of the phlegmasia dolens, metritis supervened, attended with much swelling and soreness, a purulent discharge from the vagina, constipated bowels, and slight general fever with white furred tongue. By the use of purgatives and aperients, epispastics and tepid injections into the vagina, together with a gentle mercurial impression kept steadily up for some three weeks, the patient was again convalescent and was able, at the end of two months from her confinement, to walk about the house.

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ARTICLE VII.

*Remarks upon the Organization of the Medical Department of the Army, and the Effects of Marching and a Camp Life in producing and modifying Disease.* By W. B. HERRICK, M.D., Professor of Anatomy in Rush Medical College, late Surgeon 1st Regiment Illinois Volunteers, &c.

In compliance with the solicitations of many friends, and with the view of satisfying, to some extent, the desire manifested by our medical brethren for information concerning the medical department of our army in Mexico, we propose to lay before our readers, from time to time such facts and remarks as we may deem most interesting and worthy of their attention.

As an introduction to our subject, we shall endeavor, at this time, to give a brief history of a surgeon's duties, as

prescribed by army regulations, and to make a few remarks of a general character upon the effect of long marches and a camp life in producing and modifying disease.

With regard to the organization of the medical department, it may be stated that the Surgeon General, stationed at Washington, is charged with its administrative details, and has the control of all the officers belonging to it. He assigns the surgeons and assistant surgeons to regiments, posts, and stations, and all official communications from them are made direct to him.

The senior medical officer of every separate division of the army, in the capacity of medical director, inspects hospitals, sees that the necessary medicines are provided, and that the surgeons and assistant surgeons perform their duties and abide by the rules and regulations given for their government and direction.

The surgeon of a regiment, so far as his professional duties are concerned, obeys the instructions of the medical director, and is responsible to him for the order and neatness of his hospital, for the manner in which the assistants and attendants perform their duties, and for the comfort and proper treatment of the sick. It is his duty to keep, for the inspection of the medical director, a register containing the names and rank of the sick under his charge, and also, a prescription and diet book containing his written prescriptions and directions for every case.

It is the duty of the orderly sergeant of each company to make, to the surgeon, written morning reports of sick, and to see that those who are able, present themselves for inspection at time and place appointed by the surgeon. Every surgeon or assistant surgeon, having charge of sick, makes monthly reports to the medical director, and every one attending to the sick of a regiment, post, or garrison, makes daily morning reports to the commanding officer with such remarks and suggestions in relation to whatever may effect the health of the soldiers as he may deem necessary and proper.

With regard to personal observation and experience, it may be stated that the writer of this communication joined the division of the army under General Wool, at San An-



tonio, Texas, about the first of September last, and was assigned to duty with the 1st Regiment Illinois volunteers, under the lamented Colonel Hardin, about the 20th of the same month, and continued with that regiment, for the most of the time, the only medical officer until the division joined the main army under General Taylor, near Saltillo, about the first of January of the present year.

It appears from our monthly reports, that from the 20th of September to the 1st of October, the whole number of cases treated in the regiment—the mean strength of which was, at that time, about 800—was as follows :

Remaining sick on the 20th,	-	-	-	-	30
Taken sick after the 20th and before the 1st of Oct.—					
Of Miasmatic Fever,	-	-	-	-	45
Diarrhœa,	-	-	-	-	38
Dysentery,	-	-	-	-	2
Bronchitis,	-	-	-	-	20
Pneumonia,	-	-	-	-	3
Ulcers,	-	-	-	-	3
Abscess,	-	-	-	-	3
Cutaneous Eruption,	-	-	-	-	4
Fracture,	-	-	-	-	1
					<hr/>
Total,	-	-	-	-	119
Aggregate,	-	-	-	-	149

It will appear, by comparing the above report for a part of September with those of other months which will follow, that the number of sick was much greater in proportion than at any period of time after, of the same length.

Among the causes which conspired to produce a greater amount of sickness at this time than at any subsequent period, the following may be mentioned as, probably, among the most prolific:

The men had then been in service but a short time, and were suffering temporarily, from a change of diet and habits consequent upon exchanging the pursuits of civil life, and the comforts of home, for the duties of soldiers and the exposures incidental to a camp life. It is well known, also,

that about a month previous to this time, the 1st and 2d Illinois Regiments, soon after the measles had prevailed as an epidemic in their camp, made the march from the coast to San Antonio just at the close of the rainy season, under a scorching sun, and over plains covered, in many places, to the depth of two or three feet with water. The effect of this first long march was most disastrous. Many convalescent from measles had relapses; others contracted severe bronchial affections or diarrhœa, and all suffered more or less from exposure and fatigue.

The above is the only instance in which marching proved detrimental to health. At every subsequent period during the campaign, the number upon our sick report diminished most rapidly, during and immediately after a long march, and as certainly increased after remaining in camp for any length of time.

Upon referring again to our sick report for the month of September, it appears that the 149, which was the aggregate, as before stated, were disposed of as follows :

Returned to duty,	-	-	-	-	-	95
Left in General Hospital at San Antonio,	-	-	-	-	-	40
Discharged from Service,	-	-	-	-	-	5
Died,	-	-	-	-	-	1
Remaining on the sick list but convalescent and able to march,	-	-	-	-	-	8

It is a remarkable fact, that those of the sick who, in compliance with their own requests, were permitted to remain with the regiment and participate in the fatigues and exposures incidental to this long march, recovered more rapidly and were sooner able to return to duty than others apparently as well but who were left behind in hospital.

It appears that of the one hundred and forty-nine treated during the last ten days of September, ninety-five were returned to duty before the first of October, and previous to marching. Most of these were convalescents from the different diseases above mentioned, who had been recovering but slowly whilst they remained still and quiet in camp, yet after a few days march, they improved most rapidly, and



after a week or two were able to perform a day's march with as much ease apparently, as others. Protracted diarrhœa and bronchial affections, which had yielded but slowly under the most approved modes of treatment in camp and hospital, were apparently cured without medicine, by active exercise in the open air.

These facts, as it appears to us, show that the advantages to be derived from this kind of treatment have been, in general, underrated by practitioners. From observing during the past year, the salutary effects of long marches in preventing and curing disease, we have become convinced that moderate and even active exercise in the open air, without medicine, is more beneficial in many diseases than the most approved therapeutic remedies administered to patients inactive and confined in badly ventilated apartments. By comparing the following report for the month of October, during which we were, for the most of the time, on the march from San Antonio to Monclova, with that previously given of the last ten days of September spent in camp, we find the difference in the number of cures most remarkable.

As before stated, eight remained sick the 30th of September. During the month of October the number added was as follows :

Cases of Intermittent Fever,	-	-	-	-	48
Remittent Fever,	-	-	-	-	41
Diarrhœa,	-	-	-	-	42
Mumps,	-	-	-	-	4
Bronchitis,	-	-	-	-	4
Sprains,	-	-	-	-	4
Neuralgia,	-	-	-	-	1
Inflamed Testis,	-	-	-	-	1
Ophthalmia,	-	-	-	-	1
Scorbutis,	-	-	-	-	1
Total,	-	-	-	-	147

Aggregate one hundred and fifty-five. These cases were disposed of during the month as follows :

Returned to duty,	-	-	-	-	-	-	119
Sent to Hospital,	-	-	-	-	-	-	10
Remaining sick, -	-	-	-	-	-	-	10
Convalescent,	-	-	-	-	-	-	16

Thus it appears that the whole number taken sick during all of October was but one hundred and forty-seven, making forty-nine the proportion for ten days, whilst on the march; and one hundred and nineteen for the same length of time in September whilst in camp.

The importance of keeping an army constantly moving in order to secure the health of soldiers is made still more apparent by referring to our report for January made soon after we had joined general Taylor's advance near Saltillo, after having performed the almost unprecedentedly rapid and long march of about one thousand miles:

Taken sick during the month—

Of Intermittent Fever,	-	-	-	-	-	11
Remittent Fever,	-	-	-	-	-	23
Diarrhœa,	-	-	-	-	-	9
Constipation,	-	-	-	-	-	10
Hepatic Disease,	-	-	-	-	-	1
Bronchitis,	-	-	-	-	-	4
Pneumonia,	-	-	-	-	-	1
Laryngitis,	-	-	-	-	-	1
Syphilis,	-	-	-	-	-	1
Abscess,	-	-	-	-	-	4
Ulcers,	-	-	-	-	-	3
Fracture,	-	-	-	-	-	1
Rheumatism,	-	-	-	-	-	1
Tumors,	-	-	-	-	-	6
Scorbutis,	-	-	-	-	-	3
Fistulo in Ano,	-	-	-	-	-	1
Anasarca,	-	-	-	-	-	1
Total,	-	-	-	-	-	81

From the above statement it appears that the number taken sick during the month of January, as compared with Sep-



tember was as 1 to 4, nearly; and as compared with October as 1 to 1·7.

That the health preserving influence of a long march is very great is made very apparent by this comparison of some of our monthly reports. Still, however, the statement, as made above, falls far short of exhibiting the full extent of its beneficial effects; for during a part of the months both of October and January, we were in camp, and consequently not experiencing, during the whole time, the beneficial effects of the march.

The comparison of some of our daily morning reports, exhibiting the number of cases treated from day to day whilst in camp, with others made during some of our long marches being free from the above objection, and therefore more strictly in accordance with facts, exhibits a still more remarkable difference.

From the first to the tenth of November inclusive, during which time we remained in camp, at Monclova, our daily morning report ranged from nineteen to thirty-two, averaging about twenty-five for each day. From the eighteenth to the twenty-fifth of December, on the other hand, whilst performing the rapid march from Panas to Saltillo, our morning reports ranged from six to eleven, averaging about nine per day.

The comparison of our monthly reports, for reasons before stated, makes the difference appear less than it really was. On the contrary, our morning reports whilst in camp compared with those made upon the march, make it greater than the facts will justify, as it was our practice, upon starting on a long march, to leave our worst cases behind in hospitals. In accordance with this practice, eleven of the worst cases in our regiment were left at Monclova when we left there for Panas, and nine at Panas when we left there for Saltillo.

After making all these allowances, and even admitting that the whole number left behind in Hospital would have remained upon the sick report during the march, had they continued on with the regiment, and still it will be seen that the amount of sickness whilst upon the march would have been nearly one hundred per cent. less than when in camp.

The preceding facts, as it appears to us, show that the

difference in the amount of sickness occurring in camp and upon the march, is so great as to make it a matter of vital importance to our army, as well as a subject of interest to the profession.

As to the causes of this great difference, we may remark that the simple diet used upon the march, being less stimulating and irritating than the mixed food more readily obtained in camp, had a less tendency to produce diarrhœa and dysentery. The air, too, in and around large encampments, becomes, after a time, vitiated, and tends really, no doubt, to the production of miasmatic and other diseases. But, above all, inactivity, both of body and mind, produces lassitude and general debility.

Our remarks upon the above subject have already extended too far, perhaps, to be profitable to our readers; we shall therefore close for the present, remarking in conclusion that it is our intention to lay before our readers in the next number of our Journal, a brief history of some of the most important cases that have occurred under our observation; and also a short account of our surgical experience during and after the battle of Buena Vista.



## PART II.—REVIEWS.

## ARTICLE VIII.

*Encyclopedia Americana*: Supplementary Volume. A popular Dictionary of Arts, Sciences, Literature, History, Politics, and Biography. Vol. xiv. Edited by HENRY VETHAKE, L.L.D., Vice President and Professor of Mathematics in the University of Pennsylvania, Member of the American Philosophical Society, Author of a Treatise on Political Economy, etc. Phila.: Lea and Blanchard. 1847. pp. 663, 8vo. (From the Publishers—For sale by Joseph Keen, Jr., Chicago, Illinois.)

The book which we propose to introduce to our readers in this notice, is a supplementary volume of the *Encyclopedia Americana*; a work which has been before the public for fourteen years, and has been considered worthy of a place, among works of reference, in almost every library of any pretensions. It was founded on the basis of the “*Conversations Lexikon*,” a German work, of high repute and which has passed to a ninth edition, now in course of publication. The rapid growth of the arts and sciences, and the many subjects of interest in the other departments of which the encyclopedia professes to treat, which have arisen or extended their limits within the last fourteen years, have left the original work so far behind the age, that the present volume was imperatively called for “to restore to the work all the advantages which belonged to it originally, as a book for ready consultation on subjects of general or popular interest.”

The editor, Professor Vethake, has been long sufficiently known to the literary and scientific of our age, both as a teacher and author; but we are happy to have this opportunity afforded us to offer our small mite of admiration of his high worth and excellence as an erudite scholar, and of esteem for his many excellent qualities of a social character, which we have had an opportunity of learning, not only by perusal of his writings, but by personal acquaintance with

him in the walks of private life. Indeed, we may safely assert that we know of no one better fitted for the task which he has assumed and accomplished ; a task demanding for its perfect completion, discrimination in selection of material, judgment in arrangement, and much research and information of a diffuse and general character.

In the biographical article, Professor Vethake has selected with much judgment the names of those citizens of *foreign* countries who enjoy high reputatation ; but has judiciously abstained from notice of any Americans of distinction, but such as have been removed by the hand of death from the field of envy, detraction and prejudice, and to whose memory justice impartial may now be done. In perusing the biographical sketches of living foreigners, eminent for literary and scientific abilities, we have been gratified to learn much that we would not know where else to find, and we have been particularly delighted with the notices of the recent deceased of our own times and country, whose biographies have now for the first time been presented to the world.

The historical and political articles are brought up to the present date, and will be read with interest by all. Their conciseness and clearness, together with the mass of statistical information which they contain in their connection with commerce and population, render them highly valuable.

But it is in the scientific department of the work that our readers will be more particularly interested, and to this we purpose to give a more extended notice. As, however, our space will not permit a notice of many subjects, we have selected one article which is of most length, and in which we think, considering the condensation which the work required, much justice has been done to the subject, itself of considerable interest to our professional and scientific readers. The article we refer to is that on "Magnetism." In the original work, electricity, galvanism, and magnetism were treated of separately, but in the present volume they are all treated under the one heading ; the intimate connection which comparatively recent researches have shown to exist between these forces, rendering it highly advantageous to treat of them in this way. The order in which the article presents these subjects is as follows :



- I. *Ordinary Electricity;*
- II. *Galvanism;*
- III. *Magnetism;*
- IV. *Electro-Magnetism;*
- V. *Thermo-Electro-Magnetism;*
- VI. *Magnetic Electricity; and*
- VII. *Animal Electricity.*

Upon these various subjects the article before us reviews all that has been done in the last fourteen years, and is the most complete and condensed account of the advance of electrical science that we have yet met. The matter which it contains, indeed, is only to be found in monographs of the discoverers, distributed through the various foreign and American scientific publications of the day. These have had their contents sifted, and in the article under review, is presented the pith of them all, as far as the limits of a work of the kind would permit. We will lay before our readers a condensed abstract of the various headings just enumerated, endeavoring, if possible, to include all the recent discoveries of importance.

“By *Ordinary Electricity* we understand that which is usually evolved by means of friction in the common electrical machine, and which differs from galvanism in the greater *intensity* of its action, and in the smaller quantity of the agent operative in the production of a given phenomenon.”

*Velocity of Electricity.*—This important discovery the world owes to Professor Wheatson of King’s College, London, and to give a satisfactory view of the ingenious mode by which the inconceivably rapid passage of the electrical current, was measured, we copy at length the account given in the work before us.

The problem consisted in determining the velocity of transmission of an electrical discharge from a Leyden jar, through a long conductor.

“A copper wire, some fifteenth of an inch in diameter, and half a mile long, was insulated in such a manner that its parts were not in contact with each other, three breaks being made in it; one near the beginning, another near the end, and the third near the middle of the length.

“These breaks were then brought over each other and

arranged, say in a vertical line, before a small mirror which could be made to revolve, by means of watch work, eight hundred times in a second. When the mirror was at rest, and a charge of electricity from the jar was passed through

Fig. 1. the long wire, three sparks were seen in the reflector apparently at the same instant, one above the other, as shown in the first figure in the margin. But when

the mirror was made to revolve at its full speed, the appearance was that exhibited by the second figure.

Fig. 2. 1st. Each spark appeared elongated or drawn out into

— the appearance of a line of light, indicating that the

duration of the discharge occupied an appreciable portion of time; for if the spark were not absolutely instantaneous but required sometime to pass the opening in the wire, and the mirror revolved sufficiently fast, the light would be reflected at each instant in a new direction; and, on account of the continuance of the impression on the eye would exhibit a line of light. 2d. The spark at the beginning of the wire was vertically over that at the ending, while in all the experiments the spark at the middle was thrown a little to one side: this appearance proves that the disturbance of the electrical equilibrium commences simultaneously from each end of the wire, and arrives last at the middle. By measuring the distance of the eye from the mirror, and the apparent lateral deviation of the middle spark from the other two, the fractional part of the revolution of the mirror performed during the passage of the discharge from either end to the middle, or through half the length of the wire, could be obtained; and knowing the length of the wire and number of revolutions of the mirror in a second, the velocity of the discharge could be determined. In this way, Professor Wheatstone found the velocity of the discharge to be about two hundred and eighty-eight thousand miles per second, no greater than that of light through the celestial space. He also inferred from the elongation of the light, that the spark though not absolutely instantaneous, occupied in its passage less than the millionth part of a second. The fact that the discharge from a Leyden jar reaches the middle of a long wire last, has been thought to favour the hypothesis of two fluids passing in opposite directions; but the same fact is also a legitimate consequence of the hypothesis of a single fluid."

*Specific Inductive Capacity.*—Under this head is presented the views which Dr. Faraday professes to have established by conclusive experiments, relative to the different powers possessed by different substances, of transmission of induct-



ive influence. Dr. F. ascribes induced electrical excitement to a polarization of the particles of the non-conducting medium interposed between the excited body and the body in which inductive excitement is produced. Differences in inductive capacity were found to exist among liquids and solids, but all gaseous bodies possessed the same capacity, which was not altered by variations of density, elasticity, dampness, or dryness. Dr. F. assumes the fact that induction takes place in curved as well as straight lines, which our author thinks he is not warranted in doing.

“Dr. Faraday has also made a series of investigations, relative to the discharge of ordinary electricity. These he has classed under three heads, namely, the discharges by *conduction*, *disruption*, and *connection*. The *discharge by conduction*, takes place without chemical action, or any necessary displacement of the particles of the conductor; but different bodies oppose very different degrees of resistance to this action. He finds that all bodies except gasses are, to a certain extent conductors; that all oppose a certain amount of resistance to the passage of the electrical discharge; and that conduction and insulation are different degrees of the same quality. The *disruptive discharge* is that which takes place generally between the conductors in the form of a spark. It varies very much when different aeriform substances are interposed between two conductors. An apparatus was constructed in which the same discharge could pass through either of two cylinders, one filled with gas submitted to the experiment and the other filled with common air used as a standard of comparison. With this it was found that muriatic acid gas has nearly three times the specific insulating power of hydrogen, and nearly twice that of atmospheric air. The disruptive discharge sometimes changes its form from the spark to the brush, and the latter is shown by Professor Wheatstone, to consist of a succession of intermitting discharges. The continued sound which accompanies the brush, is due to the recurrence of the sound from each discharge: the brush exhibits specific characters in different media, which are manifested by difference of colour, light, form, and sound. The *connective discharge* is that produced by the motion of charged particles. The particles of air, for example, in contact with the projecting part of a conductor, become highly electrified and are repelled by the conductor, thus giving rise to currents of air which rapidly carry off the charge. Dr. Faraday traces an analogy between this discharge and the gal-

vanic current, in which, as has been shown by Ampere, the consecutive portions repel each other."

*Electricity evolved from a Steam-Boiler.*—Most of our readers are perhaps aware that the most powerful electrical machine ever exhibited in this country, was constructed of a peculiar arrangement of a steam boiler. The article before us gives an account of the manner in which electrical excitement may be produced by this means. We accordingly extract it:

"In 1840 a workman near New Castle, in England, discovered that, while one of his hands was plunged in a current of steam issuing from a boiler, a spark would pass between his other hand and any conductor to which it was approached. We owe to Dr. Faraday the discovery of the proper explanation of this phenomenon. He has shown by a set of conclusive experiments, that the evolution of the electricity in this case is due to the friction of the drops of water from the condensed vapor against the sides of the tube, through which they are impelled by the elastic force of the steam. If the current issue through a stop cock in the side of the boiler, it produces at first, or so long as the cock is cold, a powerful excitement; but the moment the metal becomes so warm as not to condense the steam, the electricity disappears. Any substance that increases the conducting power of the liquid, being placed within a hollow in the stop-cock, destroys the existing power as effectually as moisture does that of the rubber of the machine. The final conclusion from the researches made, is, that pure steam or gases do not excite electricity by friction against solids or liquids, and that the effect, in all cases, is due to the presence of a liquid which rubs against a solid. Mr. Armstrong, availing himself of this method of developing electricity, has constructed an electrical machine of immense power, which consists principally of a tubular boiler, about the size of that of an ordinary locomotive, insulated on stout glass pillars, and furnished with a series of pipes through which the steam is blown off. One of the largest instruments of this kind has recently been exhibited in this country."

*Dynamic Induction of Ordinary Electricity.*—The laws governing the phenomena of dynamic induction of ordinary electricity, having been entirely developed by a philosopher of our own country—Professor Henry, of Princeton, New Jersey—and the phenomena being themselves of a novel



and highly interesting character, we feel ourselves warranted in presuming them of sufficient interest to our readers to give them more space than other departments of the subject. It having been our great privilege to have witnessed a portion of the experiments conducting the professor to his generalizations while serving him in the humble, but much valued capacity of assistant, we can bear witness to the almost incredible amount of severe thought and physical labor expended upon the investigation. Having thus become aware of the great scientific value of the discoveries, it has pained us that while credit has been given to Professor H. abroad, his valuable additions to science have been so little appreciated in his own country, and that the knowledge of the important developments effected by him should have been so little diffused. Justice, though tardy, is now, we are happy to say, about to be rendered; and government by appointment, to an office of high trust, and demanding great scientific attainments, has begun to redeem itself from the odium of neglect of a distinguished individual, whose name will be prominent in the scientific history of our country, long after his political cotemporaries will have sunk into oblivion. We give in full that portion of the article devoted to this branch of the subject.

“In 1836, Professor Henry, of Princeton, commenced a series of investigations, the object of which was to ascertain whether there existed any dynamic phenomena in ordinary electricity analagous to those found in galvanism. His labors on this subject, which have been continued at intervals up to the present time, have given rise to a series of new phenomena, of which our limits will not permit us to give more than the following brief analysis:

“1st. When the discharge of a Leyden jar is transmitted through a conductor, for example, a copper wire, it induces in an adjoining parallel wire, a current of electricity analagous to that which, under similar circumstances, is developed by a galvanic current.

“2d. The direction of this induced current, as indicated by the magnetic polarity given to a steel needle, enclosed in a spiral forming part of the circuit, changes its sign, (1) with a change in the distance of the two wires; (2) with the proximity of a third parallel wire, formed a closed circuit; (3) with an opening in the wire which receives the induc-

tion; and, (4), with the quantity and intensity of the discharge.

3. When the first induced current is made to act on a third wire, a second induced current is produced, which, in its turn may give rise to another current, and so on. When the several wires are at a considerable distance from each other, and the direction of the several currents is determined by the magnetization given to a sewing needle, we have, (in calling the direction of the current from the jar plus,)

+—, +—, +—,

&c.; that is, each succeeding current is opposite in direction to the current which induced it.

"4th. When a plate of metal is placed between two flat spirals, and a discharge from a jar passed through one of them, the induced current which would be produced in the other, is neutralized by an adverse current induced in the plate.

"5th. The dynamic induction of ordinary electricity takes place at a surprising great distance. A discharge from a jar being passed through a parallelogram of wire, arranged around the ceiling of an upper room, magnetized needles in a spiral forming part of a corresponding parallelogram placed in the floor of the cellar, at the distance of thirty feet below. In another set of experiments, needles were magnetized in a parallel wire at the distance of three hundred feet from the primary current; and from all the experiments it appears that the inductive results may be obtained at an indefinite distance, provided the length of the parallel wires be increased in proportion to the distances to which they are separated.

"6th. Inductive effects similar to those we have described can also be obtained from the discharge of the thunder cloud. Professor Henry attached to the metallic roof of his house a copper wire, which, passing through his study, terminated in a deep well near by: a needle placed in a spiral forming a part of the conductor through the study, was magnetized at every flash of lightning within a circle of twenty miles in diameter around Princeton. The needle is sometimes magnetized in one direction and sometimes in the other.

"7th. When sparks are thrown from a small machine on the middle of a lightning rod, the electricity does not tend to pass silently into the earth; on the contrary a spark can be drawn from every part of the rod, even from that near the earth.

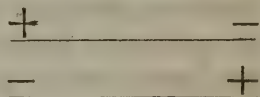
"8th. It is also proved by the magnetization of a needle placed inside and outside of a hollow bar, that although galvanic electricity passes through the whole capacity of a



conductor, ordinary electricity passes principally at the surface. It is also shown, by a series of conclusive experiments that, during the first moment of the discharge of a Leyden jar, half the length of the conductor next the end at which the discharge enters is *plus*, and the other half is *minus*, the intensity diminishing each way to the centre; and that at the next moment the condition is reversed, the opposite end becoming *plus* and the other *minus*.

"After a laborious investigation of the phenomena we have described, Professor Henry has succeeded in referring them all to the hypothesis of the existence of an electrical plenum through which dynamic induction is transmitted wave fashion; and in showing that, in all cases of the disturbances of the equilibrium, the fluid comes to rest by a series of oscillations. Thus, in the discharge of the jar, all the phenomena indicate a principal action in one direction and a series of reflex actions backwards and forwards, each more feeble than the preceding, until the equilibrium is restored.

"Our limits, however, will not permit us to give in detail the application of this hypothesis to the explanation of this phenomena; we can only allude to the explanation of a few of the more prominent ones. In the discharge of a Leyden jar through a long wire, we know that the disturbance reaches the middle of the length last; and this may be explained by supposing a quantity of free electricity to enter the end of the wire next the knob, and, at the same time, an equal quantity of the natural electricity of the wire to be drawn from the other end next the outside. The whole wire, for an instant, must therefore be thrown into a state represented by the upper line in the annexed diagram, in which the first end is *plus* and the other *minus*. The natural electricity of an adjacent parallel wire



will, according to the law of ordinary induction, assume for a moment the condition represented by the second line, and in passing to this state from that of equilibrium, it will exhibit a current adverse to that in the primary wire; but the electricity of the primary wire will pass to its ordinary state of equilibrium by a series of oscillations, each of which will induce an opposite wave in the second wire. If the two wires be at such a distance from each other, that the induction of only the first wave is effective in giving magnetism to the needle, it is evident from the foregoing that we shall always have a polarity indicating an induced current opposite to that of the primary current; but if the wires be brought nearer each other, then the needle will be first magnetized to saturation by the first vibration; and

immediately afterwards the magnetism will be discharged and that of an opposite kind developed by the second vibration. In the same way, if the wire be placed still nearer, another charge will be produced in the polarity of the needle due to the third vibration, and so on.

"It is not difficult to perceive that the variation in other conditions may also change the polarity of the needle, thus: suppose a break be made in the circuit of the secondary current, then the primary wave, having the greatest intensity will alone pass through the opening, and the polarity of the needle will be due to the action of this; while if the opening be closed, the residual magnetism of the needle may be due to the action of some of the succeeding vibrations. In this way all the phenomena described in (2) are readily explained.

"Also all the phenomena of the lateral discharge (7) find an easy explanation in a reference to the same principles. At the moment a charge is passing along the wire, each consecutive part of the length of the conductor becomes charged in succession, and tends to give off a spark to all neighboring conductors, for the same reason that a conductor charged with statical electricity tends to produce the same result. All the phenomena of dynamic induction are analagous to those of statical induction, with this exception, that, in the former, we are obliged, in order to explain all the facts, to admit *time* as an element of the calculation. The indefinitely greater distance at which dynamic induction takes place between two parallel wires, than that at which statical induction would be exhibited under the same circumstances, together with other phenomena, lead us to suppose that the former induction is transmitted in time, wave fashion, through the electrical plenum. All the phenomena of galvanic induction may be referred to the same principles as have been adopted in the explanation of the facts we have given in this article."

II. *Galvanism*.—Under this heading the improvements in the construction of the galvanic battery are mentioned, and the objects gained by those improvements explained. As these may, however, be found sufficiently and indeed more fully detailed in recent works on chemical philosophy, (see Daniels' Introduction to Chemical Philosophy and Graham's Chemistry,) we prefer omitting it, as also the article on *electro-chemistry*, that we may be able to give space to a few other extracts upon subjects not to be found in ordinary and easily accessible works.



III. *Ordinary Magnetism*.—Upon this branch of the subject our author gives an account of the experiments simultaneously made by a number of observers, and in different parts of the world, with a view to ascertain the *declination* or *variation*, the *inclination* or *dip*, and the *intensity* of magnetism. As the connection of these subjects with the objects of our Journal are very remote we omit them entirely and pass on to—

IV. *Electro-Magnetism*.—As the facts upon this subject are generally known, we shall not stop to detail them, but merely state that credit is given by Professor Vethake to Professor Henry, of Princeton, for the most valuable recent additions to this department of science, and accords to him the merit of first producing motion by a combination of the forces of magnetic and electrical attraction—in a word of being the inventor of the electro-magnetic machine.

V. *Thermo-Electro-Magnetism*.—The only new fact that we find in this portion of the article which we have not found in ordinary works, is the following:

“Professor Henry has lately made an interesting combination of the thermo-electrical apparatus and the telescope. He places the end of the thermo-electrical pile at the point where the eye-glass is inserted in the tube of a reflecting telescope; and, by this combination, is enabled to detect the difference of radiation from small objects at the distance of several miles. It also exhibits a remarkable difference in radiations from different clouds and also from different parts of the clear sky, and will, therefore be an important instrument for meteorological purposes.”

*Magneto-Electricity and Galvanic Induction*.—We know of no work which gives an account of this branch of science at all comparable in clearness and conciseness with the book under review. So comprehensive is it, that we feel that any attempt to condense it would be to leave out portions equally important with others we should retain; and though our article has already expanded, beyond our first intentions, we feel impelled to give the extract entire:

“By magneto-electricity is understood the electricity which is developed by magnetic induction. The first discoveries in this division of our subject, which were made by Dr. Fara-

day in 1832, may be briefly stated as follows:—1. If a magnet be suddenly approached to a mass of conducting metal, a current of the natural electricity of the conducting substance is produced in the conductor, in a direction parallel and opposite to that of the hypothetical current, which, according to the theory of Ampere, revolves around the magnet at right angles to the axis. 2. So long as the magnet remains at rest near the conductor, no effect is observed; but the moment it is drawn away, a current takes place in the same direction as that of the hypothetical current in the magnet. The current in each case continues only during the time of the motion of the magnet. 3. If a piece of soft iron be suddenly magnetised near a mass of conducting matter, a current of electricity will be induced in the conductors in the same direction as that produced by the approach of a permanent magnet. 4. So long as the magnetism of the iron remains of the same intensity, no current is observed; but if the intensity be suddenly diminished a current is produced in an opposite direction to that of the current which was developed at the time of the magnetizing of the iron. The current, in both cases, continues only during the indefinitely short period in which the iron is undergoing the change of state. 5. These facts may be readily certified by coiling a long covered wire into the form of a ring, about four inches in diameter and consisting of about one hundred turns. The two ends of the coil being connected with a galvanometer, a current in one direction will be exhibited when a bar magnet is thrust into the axis of the ring, and another in an opposite direction when the bar is drawn out.

While the magnet remains at rest, with its ends for example, just within the ring, no current is indicated; but if it be pushed further in or drawn further out the needle will be deflected by an induced current in the wire. Also a current will be induced in a coil by placing in its axis a bar of soft iron, and suddenly magnetizing this, either by approaching to its two ends the opposite ends of two magnets, or subjecting it to the influence of a galvanic coil, or even to the inductive action of the earth, as is the case of magnetizing a bar by suddenly turning it in the direction of the dipping needle. A magneto-electrical machine, which will produce a rapid succession of alternate currents, may be formed in this way, by mounting a bar of soft iron surrounded by a long coil of wire on an axis like a dipping needle, and causing it to revolve rapidly in the plane of the magnetic meridian; at each half revolution of the bar its polarity is changed, and consequently a series of currents in opposite directions is produced. To exhibit, however, the effect by the mere induction of the earth, a large bar, surrounded by a



very long wire, is required. A much more intense induction is produced by causing the ends of the same bar, at each half revolution, to pass near the opposite poles of two permanent magnets, or, what amounts to the same thing, by making them revolve before the two poles of a horse-shoe magnet. Various machines have been devised in accordance with these principles, for exalting the effects and facilitating the experiments. The most complete arrangement now in use was the original combination of our countryman Mr. Joseph Saxton. With a machine of this kind, shocks, decompositions, and all the other effects or galvanism, may be produced.

*“Galvanic Induction.*—From the well-known identity of action of a permanent magnet and a cylindrical coil through which a galvanic current is passing, it might be reasonably supposed that effects similar to those we have just described might be produced by galvanism; and the truth of this inference was also proved by Dr. Faraday. The results obtained by him may be stated as follows:—1. When a conductor, for example, a copper wire, through which a current of galvanism is passing, is approached to another conductor arranged parallel to the first, a current of the natural electricity of the metal is induced in the second wire in a direction contrary to that of the inducing current. 2. As soon as the motion of the conductor ceases the current ceases, and, however long the two conductors remain relatively at rest, no effect will be produced on the needle of the galvanometer; but the moment the inducing current is withdrawn, a reflex current is exhibited. 3. If two conductors are placed near and parallel to each other, and a galvanic current is passed through one of them, a momentary induced current in the opposite direction, will be produced in the other. 4. So long as the galvanic current is kept at the same intensity, no current is observed in the adjoining conductor; but the moment the galvanic current is stopped, a current in the same direction as that of the original current is induced in the adjacent wire. 5. All these principles are readily proved experimentally, by substituting, in the experiments we have given under magneto-electricity, instead of the bar magnet, a coil in the form of a cylinder, consisting of several hundred feet of wire, through which it is made to pass. 6. After the discovery of Dr. Faraday of the foregoing principles of galvanic induction, the most important additions to this branch of electricity have been made by Professor Henry. The following is a brief analysis of his results:

*“Induction of a Current on itself.*—When the poles of a single battery terminating in cups of mercury, are joined by a short wire, no spark, or at least a very feeble one, is obtained

at the moment of breaking the circuit. But when the same poles are joined with a long wire, a brilliant spark is exhibited each time one end of the wire is drawn from the cup of mercury; and if the conductor be sufficiently long, pungent shocks may be obtained by grasping the end of the wire, while the rupture of the current is made. These effects Professor Henry has shown to be due to a momentary induction in the conductor itself, by which, at the moment of the cessation of the battery current, the natural electricity of the metal is put into intense motion. The effects, which are increased by coiling the conductor on itself, are of two kinds; those of quantity and those of intensity. Those of the first kind are best exhibited by means of a conductor of copper riband, about one hundred feet long and an inch and a half wide, covered with several thicknesses of silk, and wound into plain spiral like the main-spring of a watch. When one of the projecting ends of the coil is fastened to one of the posts of a small single battery, and the other end drawn along a rasp attached to the other pole, a series of deflagrations is produced as brilliant as those excited in the ordinary way with a battery of twenty or thirty pairs highly excited. To produce, however, the most pungent shocks from a small battery of a single pair of plates, the coil should be formed of a conductor four or five hundred feet long. The pungency of the shocks may be much increased by placing in the axis of the coil a bundle of iron wires; we shall then have the inductive effect of the temporary magnetism of the iron added to that of the coil itself. On this principle the machines for medical purposes are now constructed. 7. *Conditions which influence the production of a secondary current.* When a flat riband coil, such as we have described, has been placed on another coil of the same kind, and a current of galvanism of a single battery passed through one of them, an induced current of quantity, or such as will produce brilliant deflagrations and magnetise needles, will be developed in the other. If, in place of the riband coil, which received the induction in the last experiment, there be substituted a coil formed of fifteen hundred yards of fine covered wire, an induced current of intensity will be produced, or such as gives pungent shocks. With a single battery, these effects only are exhibited at the ending of the primary current; but if a compound battery of fifteen or twenty pairs be used, the same results are obtained at the moment of beginning of the battery current. It is, however, a remarkable fact, that with a galvanometer, the quantity of induction, in all cases, appears to be the same at the completion and interruption of the primary circuit. 8. The induction of a secondary current may be produced at a considerable dis-



tance, by coiling a long riband conductor into the form of a hoop, three or four feet in diameter, and placing opposite to this a coil of long wire. In this way shocks may be given through the partition walls of two adjoining rooms, when the hoop is suspended on one side, and the long wire coil brought opposite to it on the other. 9. The interposed substance in the last experiment, must consist of some non-conducting material; for if between the two coils a plate of metal be placed, the shock is entirely neutralized; and also, surprising to say, the same result is produced, but less perfectly, if the plate be placed, not between the coils, but on the outside of one of them. This result is shown to be due to an induced current in the plate, which by its adverse induction, neutralizes the current in the coil. 10. *Currents of different orders.*—Although the secondary current we have been describing consists of merely a wave, enduring but for a moment at the beginning and ending of the primary current, yet it can also produce an induced current, and this in its turn another, and so on. The direction of these currents of the different orders as indicated by the polarity given to a needle in a small coil forming part of the conducting circuit, is as follows:

	At the beginning.			At the ending.		
Primary current,	-	-	- -	-	-	- -
Secondary current,	-	-	- —	-	-	- -
Current of the third order	-	-	- -	-	-	- —
Current of the fourth order,		-	- —	-	-	- -
Current of the fifth order,	-	-	- -	-	-	- —

“From the foregoing table, it ought to be supposed that each succeeding induction consists of a single wave, in the direction indicated by the magnetization of the needle; but this is not the case. The second induced current, for example, at the beginning of the battery current, does indeed consist of a single wave; but since an induced current is produced, at the ending, as well as at the beginning of the inducing current, it follows that the current of the third order must consist principally of two waves, which may be represented by -|—; and since each of these will produce in turn two induced waves, the current of the fourth order must be formed of four waves — -| -| —, and for the same reason the current of the fifth order must consist of eight waves and so on. The first wave in each series is the most intense and hence the magnetic character of the needle is determined by this. Professor Henry has succeeded in referring all these phenomena of galvanic induction to the principle which he has adopted for the explanation of the dynamic

induction of ordinary electricity. If we suppose, in the case of a galvanic current, a constant addition of free electricity to one end of the conducting wire, and a constant subtraction of natural electricity from the other, the first end will be *plus*, and the other *minus*, and if, while the wire is in this state, a parallel wire is made to approach it there, according to the laws of statical induction, during the advance of the secondary wire, an induced current of the natural electricity of the wire should be produced in an opposite direction to that of the battery current. When the motion ceases the current must cease. And although the wire is in a state of unusual equilibrium, which may be readily represented by a diagram, it exhibits no signs of excitement so long as the battery current remains the same and the wire is immovable; but if the second wire be drawn back, then its electricity must return to its normal state, and thus an opposite induced current be produced.

“Under the head of galvanic induction we may mention the recent discovery of Dr. Faraday, of the statical inductive influence of magnetism and galvanism on the solid and liquid substances. He divides all bodies belonging to these two states into two classes; one of which is affected by magnetism after the manner of iron, and is called the magnetic class, and the other which is differently affected is denominated the diamagnetic class. When bars of the first class are freely suspended between the legs of a powerful horse-shoe magnet, they arrange themselves, as is well known, in a line passing through the two poles; but when bars of the second class are similarly suspended, they turn into a position at right angles to the same line. Dr. Faraday also finds that a powerful galvanic current passed in a coil around a bar of almost any transparent substance, such as glass, induces on the body a change of molecular arrangement, which is exhibited in the twist given to the plane of polarization of a beam of polarized light transmitted through the substance. The same effect may also be produced by placing the transparent bar between the poles of a powerful magnet. Connected with these indications there is an interesting fact first noticed a few years since by Dr. Page, of the Patent Office, and since studied by a number of persons, of the sound produced in a bar of iron at the magnetization, indicating a change in the molecular arrangement of the metal.”

VII. *Animal Electricity*.—In this branch of the subject, the latest researches are so intimately connected with medicine that we offer no apology for the notice of them.



"The most important researches which have recently been made in reference to animal electricity are those of Matteucci, in Italy. The result of his labors conclusively proves, not that the contractions of the muscles are due to a current of electricity from the brain, but that in all living and recently killed animals there exists in the muscle itself a constant current. The general conclusion to which he has arrived in regard to these currents may be briefly stated as follows:—During the whole time the arterial blood is acting on the muscular fibre, a current of electricity is evolved which passes from the fibre to the blood, and thence to the surface, probably the fascia of the muscles; or, in other words, the muscular fibre represents the zinc of an ordinary galvanic arrangement, the blood the exciting liquid, and the fascia the copper or negative element. Indeed, the development of the electricity in the two cases appears to be due to the same cause, namely, the combination of an oxidizable substance with oxygen. We know the oxygen of the arterial blood acts on every part of the animal economy, and that every part of the organism is undergoing a process of change analagous to combustion, in which carbonic acid is developed, and heat extricated. The electricity in the one case is evolved by the burning of zinc in an acid, and in the other by burning the muscular fibre in arterial blood. For exhibiting these currents, a deep gash may be made transverse to the fibre of a muscle of a recently killed animal; and if one end of the wire of a delicate galvanometer be plunged into the bottom of the gash, care being taken not to touch the sides and the other end of the wire, brought in contact with the fascia, the needle will be deflected. By using a series of positions of muscles of recently killed animals, we may form a compound battery; the muscular fibre of one piece being placed in contact with the fascia or surface of the other, throughout the series. A pile formed in this way, of twelve or fifteen pieces of eels or muscles of pigeons produces a very marked effect on the galvanometer.

"*Effect of the Electrical Current on the Nerves.*—It is well known that the galvanic current transmitted along a nerve produces contraction in the muscle in which it terminates. According to Matteucci, there are two stages of vitality after the death of the animal, in which the current produces different effects. In the first of these, muscular contractions are produced both at the commencement and interruption of the galvanic current. In the second, they are observed in one case only, either at the beginning or ending of the current. In the case of mixed nerves, or those composed of bundles of nerves of sensation and motion, and which, consequently, have double roots, the contraction, when the current

is directed from the centre towards the extremities, is exhibited at the commencement of the current; but with the motor nerves, with a current in the same direction, the contraction is only exhibited at the ending of the current. When the current is in the opposite direction, the phenomena are reversed.

“Some of the researches of Matteucci have a bearing on medical electricity, and he has been led to conclude:—that the electrical current may be used with good success in the treatment of cases of paralysis either partial or total, and also of *tetanus*; but that in the therapeutical application of electricity, we should be careful not to continue the passage of the current too long, lest we augment the disease. The more intense the current the shorter should be its direction. When a current has passed for some time in the same direction through a nerve, paralysis of the nerve ensues; but the sensibility may be almost immediately restored, by passing the current in an opposite direction. In a case of paralysis of the nerve of motion, a current from the extremities to the centre is recommended; for paralysis of sensation, an opposite current must be employed. The most convenient instrument for the application of the electrical current for medical purposes is a single battery coil machine. Some of these instruments are so arranged as to give a series of currents in alternate directions, and others to produce a series of impulses all in the same direction.”

When we commenced the above review it was our intention to have given an outline of the article we had selected from the work, whose title heads these pages; but we found, as we progressed, that to condense the already condensed account, would be but to omit portions equally as interesting as others retained. We, accordingly, have extended our notice, perhaps too far, but have to say, in conclusion, that as it now stands, it presents a tolerably perfect view of the present condition of electrical science, a department of physics now so intimate in its connections with medicine, that no medical man should be willing longer to acknowledge himself unacquainted with its principles.

J. V. Z. B.



## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE IX.

*A Practical Treatise on the Diseases of Children.* By D. FRANCIS CONDIE, M.D., Secretary of the College of Physicians; Member of the American Philosophical Society; Honorary Member of the Philadelphia Medical Society, etc. Second Edition, Revised and Augmented. Philadelphia: Lea & Blanchard. 1847. 8vo, pp. 657. (From the Publishers. For sale by Joseph Keen, Jr., Chicago.)

The first edition of this work was published in 1844. It having been for three years before the public and adopted as a text book in many of our Medical Institutions, that it has passed to a second edition is good evidence that it is considered a work of value and authoritative on the subjects of which it professes to treat. In the present edition the author has revised the whole work, re-written portions and added such new matter as has been developed since the publication of the first edition. It is now a work that may be consulted with the certainty of obtaining the latest views of the diagnosis, pathology, and treatment of the diseases incident to infancy and childhood. J. V. Z. B.

## ARTICLE X.

*The Hand-Book of Human Anatomy, General, Special, and Topographical.* Translated from the original German of Dr. Alfred Von Behr, and adapted to the use of the English Student. By JOHN BIRKETT, Fellow of the Royal College of Surgeons of England, and Demonstrator of Anatomy at Gray's Hospital. Philadelphia: Lindsay & Blakiston. 1847. pp. 487. (From the Publishers.)

The small anatomical work with the above title, gives a

short and comprehensive detail of anatomical facts, and shows the relations which Anatomy bears to Physiology, Pathology, and Surgery. It is well adapted to serve either as an introduction to anatomy, or for refreshing the memory of practitioners, or students in the intervals between courses of lectures. H.

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## ARTICLE XI.

*The Medical Students' Vade Mecum, or Manual of Examinations upon Anatomy, Physiology, Chemistry, Materia Medica, Surgery, Obstetrics, Practice of Medicine, (including Physical Diagnosis and Diseases of the Skin,) and Poisons.* Second Edition, Revised and Enlarged. By GEORGE MENDENHALL, M.D., Lecturer on Pathology in the Medical Institute of Cincinnati, Member of the Philadelphia Medical Society, &c., &c. Philadelphia: Lindsay & Blakiston. 1847. pp. 574. (From the Publishers.)

The Medical Students' Vade Mecum is a work of very nearly the same character as the Hand Book of Anatomy. In the language of the author, "it is intended to furnish the student of medicine with a short and succinct view of the most important facts and principles which engage his attention during his pupilage, in order that he may refresh and fix more firmly upon his memory what he has read and heard." We unhesitatingly say, that we consider the work well adapted for the purpose for which it is intended. H.

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## ARTICLE XII.

*Medical Botany, or Descriptions of the more important Plants used in Medicine, with their History, Properties, and Mode of Administration.* By R. EAGLESFIELD GRIFFITH, M.D., Mem-



ber of the American Philosophical Society; of the Academy of Natural Sciences of Philadelphia, etc., etc.; with upwards of three hundred illustrations. Philadelphia: Lea & Blanchard. 1847. 8vo., pp. 704. (From the Publishers, and for sale by Joseph Keen, Jr., Chicago.)

This is a work which will be greeted with much pleasure by all who may obtain possession of it. It is by far the most comprehensive and complete work upon the subject which has issued from the American press. It indeed fills a great vacancy in the medical literature of the country. This subject—Medical Botany—has been but too much neglected in this country, both by students and practitioners; and we think the cause has been, in a measure, the want of a good text-book or work of reference upon the subject. In our works upon materia medica, no reference is had, in their arrangement, to botanic classification, and hence they afford no aid to this important study, further than the *isolated* description of plants used in medicine. The book before us supplies all the wants of the professions in this regard, and we recommend it to them as all they could desire in a work upon this subject. The introduction is a brief comprehensive essay on the structure and composition of plants. “A Glossary of Terms,” and a “Conspectus of the natural order of plants containing Medical Substances,” materially add to the value of the work. An “Index of the common and foreign names of species and of vegetable products,” and another of “Orders, Genera, and Species, with their Synonymes,” afford great facilities for reference. The illustrations are copious, and excellent in design and execution. For mechanical execution, the name of the well-known house who publish the work will afford sufficient guarantee.

J. V. Z. B.

## ARTICLE XIII.

*A Practical Treatise on Inflammation, Ulceration, and Induration of the Neck of the Uterus, with Remarks on Leucorrhœa and Prolapsus Uteri, as Symptoms of Uterine Disease.* By JAMES HENRY BENNETT, M.D., Licentiate of the Royal College of Physicians, &c., &c. Philadelphia: Lea & Blanchard. 1847. pp. 146. (From the Publishers, by Joseph Keen, Chicago.)

Nothing could be more opportune than this little work of Dr. Bennet; for if, as he states, English practitioners seem unconscious of the existence of the diseases of which he treats, not only is this true of America, but the symptoms they produce are generally taken for independent diseases, and treated by mechanical means alone. Charlatanism, taking advantage of this popular opinion, both in and out of the profession, has found its interest in inventing pessaries, supporters, and bandages of all sorts, and patients treated by these are frequently for years affected with nervous and hysterical affections, who might once have been cured by appropriate treatment. On every account this book is to be recommended—the subject, the size, the matter, and the manner are all good. We propose in our next to give a very full analysis of its contents: *signed by J. W. G. D. B.*

## ARTICLE XIV.

*The Half-Yearly Abstract of the Medical Sciences, &c., &c.* Edited by W. H. RANKING, M.D., Cantab., Physician to Suffolk General Hospital. Assisted by W. A. GUY, M.D., GEORGE DAY, M.D., HENRY ANCEL, M.D., and W. KIRKES, M.D. No. 5, from January to July, 1847. Lindsay & Blakiston, Philadelphia, &c. (In Exchange.)

This deservedly popular work fully sustains its former re-



putation in this number. It is a full and interesting abstract of what is new in the different departments of our science. As a work of reference it is exceedingly convenient and valuable on account of the admirable arrangement of its contents, and the clear and full accounts given of the many improvements and discoveries which are being made during each succeeding six months. This number contains 364 pages, finely printed and well executed. It is afforded at the low price of \$1 50 per annum. E.

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ARTICLE XV.

*The American Journal of the Medical Sciences.* Edited by ISAAC HAYS, M.D., Surgeon to Will's Hospital, &c. April 1847. (In Exchange.)

The American Journal of the Medical Sciences may, without disparagement to any other, be said to stand at the head of American Medical Journals, being the oldest and certainly one of the very best. Under the head of original communications it contains articles from eminent members of the profession in every part of this country. Its reviews and bibliographical notices are numerous and impartial, and under the heads of Foreign and Domestic Summaries it sums up with great care whatever is new and valuable in periodical medical literature. The tone of the work, from its first commencement to the present time, has been uniformly elevated, dignified and courteous. In this respect we think its influence has been highly favourable upon the entire profession. We would recommend it to any physician. D. B.

## ARTICLE XVI.

*The Medico-Chirurgical Review and Journal of Practical Medicine.* January, 1847. New York : Republished by R. and G. S. Wood. (In Exchange.)

This work, which has for so many years held a rank among the highest critical authorities, still retains its high character and interest, and furnishes in itself so perfect an analysis of current medical literature, as to render unnecessary, in many instances, a reference to the works reviewed. The republication, as will be seen, is continued by the Messrs. Woods, in New York. D. B.



## PART IV.—SELECTIONS.

1. *Claims of the Public upon Professional Benevolence.*—A woman in labor, at Birkenhead, England, applied to two medical practitioners to attend her, who declined undertaking the case gratuitously. One of them subsequently consented to act on promise of payment, and on finding that the case was a difficult one, procured also the assistance of another practitioner, by whom the woman was delivered. She died in a few days. A coroner's jury was convened, who expressed "their regret that more prompt and efficient aid was not rendered by the medical men in attendance on the deceased;" at the same time "they begged to thank Mr. S. for his prompt attention to the deceased when called upon." The gentleman who consented to take charge of the case, called in the evening and again in the morning after delivery but not receiving the promised payment, declined further attendance. Our respected cotemporary, the *Prov. Med. and Surg. Journal*, (Wednesday, April 7th, 1847,) has some remarks upon the verdict in this case, so just, and as we think, so necessary to be held in remembrance as guides both to the practitioner and the public; that we feel bound to reproduce them.—*Annalist*.

"The poor woman, it seems, fell a victim to the consequences of a natural process, requiring the assistance of a professional man, not on the moment, be it observed, but of the necessity for which she and her friends must have been cognizant for months, and yet no provision for obtaining such assistance is made beforehand, and the medical man, whose time is his estate, and his exercise of his professional calling his means of subsistence, is expected to *give* that relief immediately when demanded, and censured by the public for non-compliance. We should be glad to know on what grounds, as far as the public is concerned, he is answerable to the demand on his time, or amenable to the reproof so liberally bestowed? Why is he to be publicly reproved for not bestowing his guineas in the exercise of his calling, any more than any individual juryman, or other person, who might have the means at his disposal, for not himself handing out the fee, and thus bespeaking and requiring the service performed. Let the circumstances of the case be changed, and others, unhappily in this day, of greater frequency, substituted, and let the inquest be supposed for one moment, to have been into the cause of death of an individual, or a family, who may unfortunately have fallen a sacrifice to want of the common necessities of life; would

the jury venture to record a regret that more prompt and efficient aid had not been rendered by any baker or other provision dealer, at whose hands relief might have been sought? or would the account have been headed in a public newspaper, "Alleged misconduct of the provision merchants of Birkenhead," or of Liverpool, or of any other place in which the unhappy event might have occurred? Would they not rather have lamented that the parochial or borough authorities—that is, the public authorities—the authorities to the support of which the public contributes, and over the efficiency of which they have the right of control, had not been more vigilant in the discharge of the duties assigned them? We deny altogether the right of juries thus to censure the conduct of private individuals, or to dictate the scale on which their benevolence should be exercised, and we greatly question whether there was one individual in the court then present, the medical men excepted, who would not have resented the being called out of bed to give hours of attendance in a case requiring assistance, for which previous provision should have been made, to say nothing of contributing his guinea, or the equivalent of it on the spot. It is true we find them liberal of their thanks to Mr. Stevenson, for the gratuitous exercise of his professional skill and attention on the occasion, but no expression of willingness to contribute any portion of their substance towards sharing with Mr. Stevenson the work of benevolence to which he had been devoting his valuable time and professional skill.

Once more we are desirous that the tenor and intent of the preceding observations should not be misunderstood. God forbid that the time should ever arrive when the medical profession is not open, heart and hand, to the call of the afflicted, and willing to afford with genuine disinterestedness, all the aid and consolation—professional or otherwise—in their power, to any one who may ask it; but let not the public claim *as a right* from medical practitioners that professional assistance which it is the duty of the public themselves to see shall be provided for those who stand in need of it, and for which it is equally the duty of the public to see that the professional man who renders it is equitably and liberally remunerated."

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2. *The Connecticut Legislature*, we are told, have passed a resolution declaring that Dr. Horace Wells, of Hartford, was the original discoverer of the inhalation of ether for surgical purposes. In a paper in the Boston Jour., Jan. 30th, entitled "A Review of Dr. M. Gay's Statement of Dr. C. T. Jackson's Claims, &c." by J. B. S. Jackson, M.D., of Boston, it is acknowledged that Dr. W., in Nov., 1844, did use the sulph.



eth., but abandoned it for the nitrous oxide, but this was two years subsequently to a conversation of Dr. C. T. J., with a Mr. Bemis and others on the subject of etherial inhalation. Even if established, as it seems to be, Dr. Wells' claim amounts to very little; and we advise him to abandon it for the future, and be content with the credit of good intentions. By *his* means, certainly, ether would never have come into general use. Mr. Morton's claims to any *discovery in this matter*, are satisfactorily shown to be wholly null and void. What pleases us most, is that the author of the article in the Journal says that Dr. J. "signed the petition for the patent in an unfortunate moment, and for legal reasons alone—that he deeply regrets ever having had anything to do with the patent"—so do we—that "he has never received any pecuniary advantage from it and never will," and that he has destroyed the bond given to him, and according to which Mr. M. was to have paid him a certain per centage of the profits which might be derived from the sale of the patent right. This is as it should be, and we honor Dr. Jackson for the course he has taken. The man who confesses and repents of a fault, has made for it the only reparation in his power, and deserves to be forgiven. We hope that such may be the end of every attempt at the violation of professional decorum, if such must be made: and that it may be long ere we have occasion to chronicle such another confession and recantation on the part of a man of so high standing in the scientific ranks of his countrymen. Mr. Morton the speculative adopter of other men's ideas, shorn of the falsely claimed honor of discovery, and disappointed of gain in the supply of all the world with the "patent" "compound" "letheon," stands alone in his glory! and there we leave him!—*Annalist*.

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3. *Case of Ovariectomy*: By Mr. BAINBRIGGE.—The subject of this case was a lady, aged 31, who consulted Mr. Bainbrigg for a large tumor in the abdomen, and another which projected from the vagina, both yielding a distinct sense of fluctuation. The symptoms and history at once decided Mr. Bainbrigg to consider it a large unilocular cyst protruding in the two directions above mentioned.

After consultation with Sir C. Clarke, the patient was tapped by Sir B. Brodie, with evident advantage to her general health; but both tumors soon refilled.

In order to conceal the deformity, the lady adopted the strange expedient of compressing the abdomen by means of a piece of wood placed on the abdomen, and secured with a bandage. As a consequence probably, of the treatment the cyst ruptured, and general peritonitis ensued. From this,

however, she recovered, and it was then found that the dropsical tumor had entirely disappeared.

It now happened that a tumor exhibited itself on the opposite side, in its commencement and progress, similar to the previous one, with the exception that there was no protrusion of the sac per vaginam. The patient being anxious for something to be done, and having heard of the operation for ovariectomy, Mr. Bainbrigge yielded to her request but performed an operation which was modified as follows:

An incision was made through the abdominal parietes, about three inches in length, a portion of the cyst was drawn out, the contents were evacuated, with the precaution against the escape of any into the peritoneal cavity; a portion of the cyst was then removed, its edges fixed to the outer wound in the abdominal parietes, and the cyst allowed to assume a suppurative action, in the hopes that it would finally contract and disappear. These hopes were not disappointed, for on the fifth day the discharge became purulent, and was maintained such by stimulating injections. In about three months the discharge was greatly diminished, and her general health was completely restored.

[In reporting this case as a successful cure of ovariectomy the reader's attention must be called to the important modification adopted by Mr. Bainbrigge, one which he subsequently (Jan. 18) shows to be warranted by the result of former operations of the same kind. Neither is the incision of such a length as to be in itself formidable, nor is there any necessity for the rough handling of the interior of the abdomen, which must almost necessarily excite inflammation in the ordinary method of excision.]—*Prov. Med. Jour. in Ranking's Abstract.*

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4. *Spontaneous Evolution.*—At a meeting of the Obstetrical Society of Edinburgh, at which a discussion followed the narration of some cases of spontaneous cephalic and pelvic evolution, Dr. Simpson gave the following general deductions respecting the process. He observed—1st. That spontaneous evolution in transverse presentations was not so rare as some authors averred, and that it would probably occur oftener if timely assistance were not proffered. 2d. That under some circumstances arm and shoulder cases should probably be left to be expelled by the mechanism of spontaneous evolution, assisting, if necessary, this mechanism by art. 3d. That this ought to be our practice if, in an arm or shoulder case, the chest and trunk of the child be already thrust down into the cavity of the pelvis; for to turn under such a complication, and with that object, attempt to push back the body of the child into the cavity of the



contracted uterus, would risk a rupture of its coats. 4th. That if the process of spontaneous evolution fails, two operations have been recommended to effect delivery, viz.: evisceration and decapitation. 5th. That evisceration is only applicable to cases of *pelvic* spontaneous evolution demanding operative interference; and decapitation is only applicable to *cephalic* spontaneous evolution. 6th. That in all common transverse presentations, seen before the body and bulk of the infant is doubled and thrust into the cavity of the pelvis *turning* is the proper practice. 7th. That a child of common size would never, in a transverse presentation, be thrust into the cavity of the pelvis, unless the pelvis were large in its dimensions; and hence, when the process of spontaneous evolution is found in an advanced stage, it is almost a certain sign that the pelvis is of such a size as to give a chance of its completion.—*Month. Jour.*, *ibid.*

5. *Human Tripod*.—A malformed child, so called from its presenting the appearance of three legs, is described and figured in the last volume of the “*Medico-Chirurgical Transactions*,” by Mr. Acton. The child is represented as being lively and healthy, and perfectly formed above the umbilicus. Below this point, and to the right and left of the mesial line are two distinct penes, of normal direction and size. Each is provided with a scrotum, the outer half of each containing a testicle. Between and behind the legs is seen another limb, or rather two limbs united together throughout their entire length. The anus occupies its usual situation, and the functions of the bowels are duly performed. Below this the thigh of the compound limb equals in size the buttocks of a young child. Urine passed at the same time from both penes. Mr. Acton mooted the question of the removal of this supplementary limb, which he considered a feasible operation.—*Medico-Chirurg. Trans.*, vol. xxix., *ibid.*

6. *Professor Simpson's Essay*.—III. *Artificial Separation of the Placenta*.—The arrestment of unavoidable flooding by total detachment of the placenta should, I believe, be our line of practice when the combination of circumstances is as follows, viz.: the hemorrhage is so great as to show the necessity of interference, and is not restrainable or restrained by milder measures (such as the evacuation of the liquor amnii); but at the same time, turning or any other mode of immediate and forcible delivery of the child, is especially hazardous or impracticable, in consequence of the undilated or undeveloped state of the os uteri, the contraction of the pelvic passage, &c. Or, again, the death, prematurity, or non-viability of the infant may not require us to adopt modes

of delivery, for its sake, that are accompanied (as turning is) with much peril to the mother, provided we have a simpler and safer means, such as the detachment of the placenta, for at once commanding and restraining the hemorrhage, and guarding the life of the parent against the dangers of its continuance. Hence as I have elsewhere stated, I believe that the suppression of the flooding by the total detachment of the placenta will be found the proper line of practice in severe cases of unavoidable hemorrhage, complicated with an os uteri so insufficiently dilated and undilatable as not to allow of version being performed with perfect safety to the mother;—therefore, in most primiparæ; in many cases in which placental presentations are (as very often happens) connected with premature labor and imperfect development of the cervix and os uteri; in labors supervening earlier than the seventh month; when the uterus is too contracted to allow of turning; when the pelvis or passages of the mother are organically contracted; when the child is dead; when it is premature and not viable; and where the mother is in such an extreme state of exhaustion as to be unable, without immediate peril of life, to be submitted to the shock and dangers of turning or forcible delivery of the infant. This enumeration is far from comprehending all the forms of placental presentations that are met with in practice; but it certainly includes a considerable proportion of the cases of this obstetric complication, and among all or almost all of the most dangerous and most difficult varieties of unavoidable hemorrhage. In adopting the practice, one error, which I would strongly protest against, has been committed in some instance. Besides completely detaching and extracting the placenta, the child has subsequently been extracted by direct operative interference. If the hemorrhage ceases, as it usually does, upon the placenta being completely separated, the expulsion of the child should be subsequently left to nature, unless it present preternaturally, or the labor afterwards show any kind of complication, which of itself would require operative interference under any other circumstances. Both to detach the placenta and extract the child would be hazarding a double instead of a single operation.”—*Ibid.*

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7. *Quinine in Coffee.*—A Parisian medical student, M. des Veuves, has been recommending the administration of quinine in an infusion of coffee, as the best means of concealing its bitterness, and as not impairing its medicinal powers. There is a warm discussion as to whether this is a discovery. It appears, however, not to be new but that the young man has the honor of having directed the attention of the medical



faculty in Paris to this useful mode of giving quinine, which had been almost entirely overlooked. It is worthy of a trial in this country.—*Lond. Lancet in Bost. Med. and Surg. Jour.*

8. *A Case of Injury of the Eye.* By CHS. W. STEPHENS, M.D., St. Louis.—*April 15*—Mr. Newell a clerk in a drug store, in combining eight ounces of sulphuric acid with two ounces of Indigo, imprudently corked the bottle containing the ingredients, and upon effervescence taking place, the cork was forced out, and the contents received upon the face and into the eyes of the gentleman.

Dr. Jackson and myself visited him in about ten minutes after the accident, and, at the suggestion of the doctor, rubbed the face with the calcined magnesia, at the same time raising the lids, deposited small quantities upon the globe of the eye. The effect of this application was immediately to neutralize the acid, forming the sulphate of magnesia, which is inert. High inflammation immediately supervened, of conjunctivæ and of the whole face; applied a mixture of the cal. magnesia with olive oil, and poultices of slippery elm; the inflammation soon began to subside, and we directed an astringent collyrium. He is now (May 10) able to attend to his usual business, suffering, however, a good deal from an inversion of the eye-lashes, *trichiasis*, which I find it necessary to remove from time to time; the lower lachrymal duct is entirely obliterated.—*Missouri Med. and Surg. Jour.*

9. *Quackery and the Newspaper Press.*—In Scotland the presses are beginning, in real earnest, to oppose the vile system of quack medicines and quack advertisements. Articles have been forwarded to us from Chambers' Edinburgh Journal, the Scottish Reformers Gazette, the Glasgow Constitutional, the Fifeshire Journal, and other respectable newspapers, expressing their determined opposition to medical quackery in every shape. The Glasgow Constitutional tersely observes:—

"We have often been astonished that some journals, otherwise as respectable as their neighbors, should, for any trifling pecuniary advantage, place themselves in the position of *socii criminis* to a parcel of vagabond quacks.

"We consider the insertion of quack advertisements a most dangerous imposition, and the persons who give it as little better than the more daring criminal. The quack and his newspaper agent are as necessary to each other, in order to dupe the unwary with complete success, as is the receiver to the thief, being all in concert; and they divide the spoil wrung from the pallid hand of poverty, disease, and death."

Chambers' Edinburgh Journal, entering, as it does, the

homes of tens of thousands in every part of the empire, can do immense service to the anti-quackery cause. In Ireland, also, the anti-quackery feeling is alive. As we stated some weeks ago, the Nation is most vigorous and determined in its reprobation of quack medicines and advertisements. Side by side with this paper we must place the Dublin General Advertiser. We are sanguine in the hope, that the press which has so long been the strong hold of quackery, will now become an agent in its destruction. We contend that every qualified medical man should become an active propagandist of anti-quackery opinion, above all, should endeavor to influence the public press for the suppressing of the whole system.—*Lancet*.

The profession could do much to abate this monstrous evil, if they would exert the power they possess. Let them exert their influence in favor of those papers which refuse insertion to quack advertisements, and discountenance those which publish such advertisements, and the unholy alliance which now exists between quackery and the newspaper press would be broken up.—*Med. News*.

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10. *On the use of Quinine, &c.* By W. S. KING, M.D., U. S.A. (In a letter to the Editor.)

*Fort Leavenworth, Feb. 20, 1847.*

Dr. C. A. LEE—Sir:—In the New York Jour. Med. for November, 1846, favorable allusion is made to the practice of administering quinine in combination with a diaphoretic. Without being aware that this mode of giving quinine had been recommended or used by others, I have been in the habit of resorting to this combination for some time past, particularly during the past summer.

The novelty and excitement incident to the Santa Fe expedition, caused much anxiety among the sick here, lest their recovery should not be rapid enough to enable them to leave with their companies. The interests of the service also rendered it peculiarly desirable that the cures should be as prompt as possible. As a means of effecting the desirable object, quin. and sp. nitr. dul. (generally, however, with the addition of tinc. opii or tinc. opii comp.) was my usual and favorite prescription. This formula was used, in several hundred cases, of intermittent and remittent fevers, and, in almost every case, with happy effect. With opium, as an adjunct to the quinine and sp. nitr. dul., it will readily be conceived that the value of the prescription is increased, and is rendered capable of fulfilling a much greater number and variety of indications. It may then be employed in those cases of fever, where there is much restlessness and nervous excitement, and, by allaying pain, checking various symp-



toms, soothing and tranquilizing the patient's feelings, greatly contributes to his comfort and convalescence. The diaphoretic properties of the prescription are much increased by the addition of the opium. The power which this medicine possesses of restoring the equilibrium of the circulation and excitement, by determining to the surface, makes it particularly useful in the hot stages of fever, and enables you to use the quinine sooner than otherwise would be safe.

There are several advantages in this mode of giving quinine. 1st. There is a gain as to time, of twenty-four hours in intermittents, and in remittents, of perhaps several days, which would otherwise be lost in waiting (as recommended by good authority) for the apyrexial intervals, before exhibiting the quinine. 2. By tending to lessen and thereby shorten and speedily terminate the paroxysm of fever, you place the patient, in a short time, in a fair way to recover, and thus diminish the liability to complications which often occur, and in a great measure secure him from the consequences of accidental affections of a distressing and dangerous character. 3. To shorten the paroxysm of fever, and thus destroy the chain of morbid influences that surround the patient *before* strength and restorative powers of the system are weakened, are objects of the highest degree of importance, particularly so in broken down constitutions, or, in such as are feeble and exhausted by previous injurious influence. It needs no argument to show that any means calculated to promote these results must exert an influence highly curative.

I have been much pleased with the success attending this union of remedies, and believing it to be capable of fulfilling the indications I have pointed out, can cordially commend it to those who have not yet tried this method.

Not considering that the use of purgatives or other preparatory treatment was necessary in all cases, I have given the quinine and diaphoretic (with or without the opium according to circumstances) at once on the patient's reporting sick and have had no reason to regret it. By this plan the patient is exempted from the disagreeable and debilitating effects attending the exhibition of emetics and purgatives, which, in many cases may be happily dispensed with. The following formula answers very well in some cases, and where no irritability of the stomach exists, is often preferable to the one already mentioned :

R.—Tinct. Opii Comp.

Sp. Nitr. Dul. aa. 3j.

Vin. Antim. gtt. xx.

Solutio Sulphatis Quinæ 3j.—3iij.

Fiat mist. Sumatur alternis horis.

The antimonial was generally omitted in my usual prescription which was similar to the above, with this exception. I do not pretend that in all cases of intermittent and remittent fever, this alone will answer, but that, in experimenting with remedies, or plans of cure, I have found that I could cure and return to duty a greater number of cases, and in a shorter time, by this than by any other medical treatment. I do not offer these considerations because I esteem them new, or worthy of special attention, but for the purpose of bringing the practice of using quinine in combination with various other substances, (which I believe has many advantages over the plan of giving it alone,) to the attention of the profession, with the hope that farther experience will lead to improved modes of exhibiting this article, that will be free from the objections now made by some to the use of this invaluable medicine.—*New York Jour. of Med.*

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11. *On the Effect of Blisters on the Young Subject.* By JOHN B. BECK, M.D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of New York.

It has frequently struck me that a treatise, describing, with the necessary precision, the peculiarities of the effects of medicinal agents on the young subject, as distinguished from their effects on the adult has long been needed in our profession. As yet I know of no such work. The systems of Materia Medica, valuable and elaborate as they are and in which we should naturally look for the requisite information are confessedly deficient on this subject. The consequence is, that the young practitioner who depends upon them, finds himself continually embarrassed in the treatment of the diseases of children, and he is obliged, after all, to rely upon the incidental observations gathered from works on general practice, or upon the slow accumulation of his own observation. Even works professedly on the diseases of children do not supply the want. They indeed specify doses suitable to the age, and now and then give cautions in relation to the use of certain medicines, but they do not enter into the philosophy of the subject as it ought to be engaged upon. It is treated by them more as a matter of enlightened empiricism, than as one founded on sound and rational physiological and pathological principles. In some previous papers I have endeavored to offer some contributions on this subject and should they be the means of inducing some experienced hand properly to elaborate it, it appears to me that a greater practical benefit could not be conferred upon the profession.



On the present occasion I propose to make *Blisters* the subject of a few remarks.

The first peculiarity attending the operation of blisters on the young subject is, *that they produce their effects in a shorter time than they do in the adult*. This is a fact well known to every practitioner. While in the adult, they do not produce their effects until from eight to twelve or even more hours have elapsed, in the child the same takes place in from two to six hours. In this respect there is a striking difference between blisters and most other remedies. Emetics and cathartics for example, do not appear to act with any more rapidity on the child than they do on the adult. Now this fact, of the more prompt action of this class of agents, upon the child, although a simple one, is, nevertheless, one of great importance, and one which should be continually borne in mind. It has a practical bearing, not merely upon the mode of conducting the process of blistering in young subjects, but also upon the use of it in their various diseases.

The second peculiarity is, *that the local inflammation produced by a blister is greater in the young subject than in the adult*. The reason of this is obvious. In infancy, the skin is more delicate in structure, has greater vascularity, and a higher degree of sensibility; all circumstances favoring the development of greater inflammation. The local impression, accordingly, made by a blister, is not merely more rapidly developed in the young subject, but it is also more intense.

The third peculiarity is, *that in young subjects blisters are more apt to be followed by the injurious consequences of inflammation, such as ulceration, gangrene, and even death*. Numerous and melancholy instances of this are to be found on record. Dr. Ryan, speaking of the use of blisters in children, says, "I have seen a blister on the chest followed by sloughing, and an aperture form over the epigastrium, which exposed the subjacent viscera."\* Dr. Thompson states that he "has seen gangrene and death follow the application of a blister on an infant."† Dr. North States that he has "twice known infants destroyed in consequence of the sloughing of blisters the progress of which could not be arrested."‡ Professor Chapman remarks, that in children a blister "sometimes induces gangrene, as I have witnessed in two or three instances."§ My friend, Dr. William C. Roberts, informs me that he has met with two cases in which children sank under the effects of blisters. Numerous other facts of a similar

\* Manual of Midwifery, &c. By Michael Ryan, p. 746.

† Materia Medica. By Anthony Todd Thompson, M.D., vol. ii, p. 535.

‡ Practical Observations on the Convulsions of Infants. By John North, p. 202.

§ Elements of Therapeutics, &c., vol. ii, p. 28.

character might be adduced to show the disastrous effects which sometimes result from the application of blisters to children; and to the minds of many physicians it constitutes a serious objection to their use in their diseases. Dr. Armstrong says, "I have a great dread of the application of blisters to infants, on account of what is called the local and constitutional irritation."\* Now these occurrences may and do take place also in the adult, but they are comparatively rare and only under very peculiar conditions of the system. In infants, on the contrary, they are by no means uncommon. In any child, however healthy, they may occur from the simple cause of their being left on too long. They are more likely to take place, however, in certain conditions of the system, or of the skin itself. Thus, for example, in cases where a child is greatly emaciated, or the constitution broken down from various causes, the inflammation of a blister is very apt to become unhealthy in its character, and to be followed by injurious consequences. Then, again, where the skin itself is in a diseased state, it is much more likely to happen than in the healthy conditions of that surface.

The fourth peculiarity is, *that the constitutional excitement produced by blisters is generally greater in young subjects than in the adult.* That this must necessarily be so is obvious. In all cases, the general excitement must be in proportion to the degree of local irritation and the sensibility of the patient's system. If so, the general vascular and nervous excitement produced in the child by a blister, must, as a matter of course, be greater than in the adult. So powerful, indeed is the impression thus made sometimes, that convulsions have been produced from this cause. Dr. North says: "I have frequently seen very severe paroxysms (of convulsions) brought on in consequence of their injudicious and unnecessary application."†

From the whole of the foregoing, it is evident that blisters are much more powerful in their agency upon the young subject than upon the adult. They operate with more rapidity—cause a greater degree of local irritation and constitutional excitement—and their operation is frequently followed by consequences which rarely occur in the adult.

If such be the case, it appears to me that some conclusions may be drawn, of no inconsiderable practical importance.

1. If blisters are more powerful in their action upon children than adults, then it would seem to follow that they may be rendered more efficient as a means of cure in their diseases. And such appears to me to be really the fact. In

\* Lectures, p. 362.

† Observations on the Convulsions of Infants. By J. North, p. 209.



all cases, where their revulsive agency is required, and where they are properly applied, it has struck me that more decided benefit has resulted from their use in children than in adults, and that, too, under circumstances as nearly similar as they well could be. Besides acting more powerfully the rapidity of their operation in children gives them a greater advantage in many cases. We all know that one of the great objections to a blister in the adult, sometimes at least, is the length of time which it takes to produce its effects. In a child this is in a great measure obviated, and we have in a blister not merely a powerful but a comparatively speedy counter-irritant. As remedial agents, therefore, in the diseases of children, it seems to me that they ought to hold a high rank. I am aware that, by some, an opinion entirely the reverse of this is entertained. Mr. North in his valuable work on the convulsions of infants, states that he thinks that except as stimulants in depressed states of the system, blisters are altogether objectionable in the diseases of children. As revulsives in cases of local inflammation, he regards them as having attained a character which they do not merit, and that in fact they do more harm than good. On this subject he says, "the period at which we apply blisters in local inflammatory affections is not to be forgotten. We first subdue the severity of the disease by other and appropriate remedies, and when it is upon its decline, when in all probability the unassisted powers of nature would successfully perform the remainder of the task, a blister is applied. The patient gets well, notwithstanding the additional pain thus inflicted; and the fortunate result of the case, which is really to be attributed to the measures previously employed, is said to be owing to the good effects of counter irritation, &c., and the blister gains a character to which, in point of fact, it has no claim."\* Now all this may no doubt be true in some cases, but that it is so generally can hardly be admitted. It should be recollected that in the treatment of local inflammations, blisters are only auxiliary remedies. Of themselves and alone, capable of doing but little, and yet, when co-operating with other agents, such as blood-letting, &c., exceedingly powerful and valuable. Every one knows that there are periods and conditions in the career of inflammatory complaints, when bleeding and other reducing remedies have been carried to the fullest extent deemed advisable, and yet sufficient disease may remain if not to destroy life, yet to render convalescence tedious, or to lay the foundation of subsequent chronic disease. This of course, it is all important to obviate. Now it is just under

\* Observations on the Convulsions of Infants. By J. North, p. 205-6.

this condition of things that blisters come in with great effect, and frequently break up completely the remaining vestiges of disease; and in this way I look upon them as remedies acting with more power and efficiency in children even than in adults.

2. From the fact of blisters being such powerful agents and especially from the fact of their being so liable to be followed by dangerous consequences, more caution is required in their use in children than in adults. Important and valuable as they are and may be made, if properly used, their indiscriminate application cannot be too much reprobated. Just in proportion to the good they are capable of accomplishing under proper circumstances, is the evil which results from them, if heedlessly or injudiciously resorted to. It is to be feared that this is not always borne in mind as it should be. As a general rule, they should never be resorted to, especially in very young children, unless some decided benefit is anticipated from them.

3. The mode of conducting the process of blistering in a young subject is a matter of greater nicety, and should call for the utmost care on the part of the practitioner. As one of the principal causes of gangrene is leaving the blister on too long, this is a point that should be specially attended to. To many this may appear a small matter, but it is really one of great moment, and in relation to which I am sorry to say, that the directions given in many of our practical works are so discrepant as to be very poor, if any, guides to the young practitioner. By way of illustration, I will quote a few of them. Dr. Armstrong says, "from twelve to sixteen hours is generally sufficient for the application of the blister in adults, and half that period in children."\* Dr. Williams says that, "to avoid gangrene in children, it is advisable never to allow the blister to remain on more than six hours."† Dr. Dewees states that "in children, the blister is frequently found to have performed its duty in eight hours, and very often in six. It should, therefore, always be examined at these periods, and dressed, if sufficiently drawn; if not, it should be suffered to remain until this takes place."‡ Evan-son and Maunsell say, "In no instance is the blister to be left on more than a few hours (two to four)—not longer in fact, than until the skin is reddened, when vesication will follow; but this result should not be waited for, as attendants always will do, unless the most express directions to

\* Lectures, &c. By John Armstrong, M.D., p. 362.

† Cyclopædia of Practical Medicine. American Edition, vol. i, p. 259. Art.—Counter Irritation.

‡ Practice of Physic. By Wm. P. Dewees, M.D., p. 28.



the contrary be given.”\* Neligan directs that “as a general rule, in infants and young children, blisters should only be left on until redness of the surface is produced, when the application of a warm poultice to the part will cause vesication.”† Ballard and Garrod remark, that in children a blister should not be allowed to remain on longer than to produce redness of the surface ; and they add, “in very young infants, it has appeared to us doubtful whether even redness should be permitted to occur before its removal.”‡ The foregoing is a sample of the discrepancy of opinion in relation to a most important point of practice, and one confessedly, too, not unfrequently involving the life of the young subject, as advanced by authors of the highest respectability and who may be supposed to exert a wide influence in guiding the practice of young beginners in our profession. The fact is, and this may account somewhat for the difference of opinion just noticed, that no positive rule can be laid down in relation to the precise time that a blister should be left on a young child. From the original differences in the sensibility of the skin in children, the period must necessarily vary, and the only safe general rule is to be governed by the actual effect produced. For this purpose the blistering plaster should be raised at suitable intervals, and the state of the skin observed. And the safe plan is, according to the directions of some of the authors quoted above, to remove the blister as soon as the surface appears uniformly red, and then to apply a soft poultice. In most cases this will be followed by a suitable vesication, while any injurious consequences will be averted.

It is not my intention in this paper to go into the minutiae of conducting the process of blistering, but there is one other point which I cannot help noticing, and that is the practice which is so common with some, of covering the blistering plaster with dry fly-powder. Although intended to make the blister more potent, it frequently has a directly contrary effect, from the fact that the blister does not adhere so closely to the skin ; over and over and over again have I seen blisters prepared in this way fail in producing the desired effect, although left on even longer than the usual period. Then, again, the dry powder is apt to adhere to the skin after the blister is removed, and in this way strangury is more likely to be produced. In one case, according to Ure,

\* A Practical Treatise on the Management and Diseases of Children. By R. T. Evanson, M.D., and H. Maunsell, M.D., p. 107.

† Medicines, their Uses and Mode of Administration. By J. W. Neligan, M.D. p. 202.

‡ Elements of Materia Medica and Therapeutics. By Ed Ballard, M.D., and A. B. Garrod, M.D., p. 457.

sphacelus has occurred from this cause.\* As apothecaries are very apt to prepare blisters in this way, it is important that practitioners should be on their guard to prevent it. With regard to the dressing of a blister, always a matter of importance to the young subject, and frequently so to the adult, I would call the attention of the reader to a mode very recently recommended by Dr. MacLagan, of Scotland, which holds out many advantages over the ordinary method. After leaving the blister on for a suitable time, he applies a poultice of bread and milk for two hours. After discharging the serum, a thick layer of soft cotton wadding is applied over the part with the undressed or woolly surface next the skin. If, in the course of a few hours, this should become soaked with the serous discharge from the blister, so much of the cotton may be removed as can be done without disturbing the loose epidermis beneath, and the whole again covered with a dry layer of cotton. This is all the dressing which, in general is requisite. The cotton is allowed to stick to the skin of the blistered part, and when a fresh layer of epidermis is formed, which takes place very readily, the old epidermis and cotton come off together, leaving a smooth whole surface below.

The advantages of the above mode, according to Dr. M., are first, "that it renders the blister much less painful and annoying to the patient than when unguents are used. The tenderness, in fact, is comparatively so trifling, and the protection by the cotton so good," he says, "that I have been enabled, without annoyance to the patient, to percuss freely, and apply the stethoscope firmly over the blistered parts, which had been dressed for the first time only an hour or two previously; secondly, the blisters heal faster under it than under dressings with cerate; for, although the cotton may remain adhering for some days, I have generally found that within twelve hours the patient ceases to feel the blister a source of annoyance. Lastly, it dispenses with the greasy applications so disagreeable to patients of cleanly habits."†

4. To obtain the good and avoid the evil of blisters, it is evident that a nicer discrimination of the conditions of the system is necessary in the use of this class of agents in children than in adults. Long experience has established the fact, that it is only under certain states of the system that blisters can be used with any prospect of advantage. If this be true in the adult it is doubly so in the young subject, and any mistake in this respect is much more likely to

\* A Practical Compendium of the Materia Medica, &c. By Alexander Ure, M.D p. 31.

† Edinburgh Monthly Journal of Medical Science, May, 1847, p. 834.



be followed by injurious consequences in the latter than in the former. Now the conditions which influence the effects of these agents are the state of the skin, and the state of the nervous and vascular systems. With regard to the skin, it may be laid down as a general rule, that when blisters are used as revulsives, the part to which they are applied should be as nearly as possible in a state of perfect health. In this state, the irritation of blistering may be established even in a child with comparative safety. On the contrary, when the skin is in a morbid state, ulceration and gangrene are by no means unusual occurrences. All this is occasionally illustrated in scarlatina and measles. Mr. Pereira mentions that he has seen "two instances of death from the gangrene caused by applying a blister after measles."\* My friend Prof. Dunglison, in his valuable work on *Materia Medica*, states that he has seen "several cases of death manifestly caused by the use of blisters in scarlatina and measles."† Other facts of a similar character might be adduced, but the preceding are sufficient to show the tendency which there exists in this state of the skin to take on unhealthy inflammation. And the reason is to be sought for in the changed condition of the skin. During the febrile stage of these diseases the skin is preternaturally injected and excited. As soon as the fever subsides and the eruption recedes, the skin is left in a state of debility—a state in which as we all know, inflammation is very likely to terminate unfavorably. I hope it may not be inferred from the preceding that I mean to express the opinion that blisters ought never to be used in such cases as measles and scarlatina—but the possible occurrence of such consequences ought to make us exceedingly cautious about the manner of using them, and indeed ought to deter us from using them at all, unless under a manifest necessity. In every case, therefore, before applying blisters to young children, the condition of the skin ought to be attended to.

With regard to the state of the system, this is even still more necessary to be inquired into. Indeed this is all important, if we hope to realize any of the expected benefits from these agents. Now there are two states of the system almost equally unpropitious to their use—and these just the reverse of each other. The first is that in which high inflammatory excitement is present. That this is unfavorable to the legitimate operation of a blister as a revulsive, is obvious if we reflect a moment upon the effects of this agent. These are local irritation and general excitement. Now in all

\* *Materia Medica*, vol. ii, p. 775. American Edition.

† Vol. ii, p. 119.

cases where an internal inflammation exists, the difficulty of resolving by any means will be proportioned to the degree of general excitement accompanying it. If a blister be applied where this general excitement is already very great, one of the necessary consequences will be to augment this so greatly as to counteract in a greater or less degree, according to circumstances, the beneficial effects of the blister as a revulsive. Under this condition of things, the internal inflammation will be aggravated instead of abated, in consequence of the increase of general excitement. Hence the fact has been generally observed that if blisters are applied in the early periods of inflammatory complaints, or before suitable evacuations have been resorted to, they frequently do more harm than good. They merely add fuel to the fire.

On the other hand, a state of great constitutional exhaustion, and emaciation is also unfavorable to their operation. The reason here, however, is that from the impaired state of the vital energies, the local inflammation of the blister may be followed by ulceration, gangrene, and death. In the use of blisters, therefore, both these extremes should be carefully avoided. With regard to the condition most propitious to their use, it is that in which the general excitement is rather below than above the natural standard. When this is the case, there is less danger from any increase of excitement, while the system is in the state most favorable to the transfer of irritations from one part to another. Now all this is applicable to the adult, and we can easily see how much more so it must be in the case of the irritable and sensitive infant.

5. In the use of blisters in children especial reference should be had to the peculiarities of their temperament and constitution. This is more important perhaps than it may at first sight appear. Every practitioner must have observed the extreme suffering which adults sometimes undergo from the irritation of blisters. In nervous and irritable habits, I have myself seen a state of things thus induced, little short of phrenzy. In children of nervous temperaments, all this is much more likely to happen, and accordingly, greater caution should be exercised.

If the foregoing conclusions be founded in truth, they would seem at once to expose the impropriety of the practice of resorting to the use of blisters on every trifling occasion, in the management of the diseases of children. There is an opinion prevalent—how it originated I do not know—that blisters are innocent remedies—if they do no good they can do no harm. Now this is unquestionably a great error, and productive of vast mischief. Independently of the unnecessary suffering which they may occasion, they sometimes



produce death by the manifest causes of ulceration and gangrene, while in others they insidiously aggravate the disease they were intended to relieve.

12. *Inhalation of Nitrous Oxide.*—E. E. Marcy, M.D., in the Boston Med. and Surg. Journal, reports the removal of a large schirrous testicle, without pain, under the influence of the nitrous oxide. The following extract shows his estimate of the agent.

The legislature of Connecticut has passed a vote of thanks to Dr. Horace Wells, of Hartford, for his great discovery, which consists in the use of "*Nitrous Oxide Gas or Ether in Surgical Operations.*"

"Another superiority which it possesses over the ether is, that its after effects are far less unpleasant—less headache, less lassitude, and less depression of the nervous system, always resulting from its use. Ether generally causes troublesome choking and cough; the gas scarcely ever. Ether is objectionable on account of the unpleasant smell which it communicates to the room; the gas possesses no disagreeable odor. Ether abstracts largely from the oxygen of the arterial blood, thus becoming a direct source of disease; the gas has no such effect. Ether gives rise to pains in the head, lassitude, impaired vital energy, and other symptoms indicating a serious depression of the nervous system; the gas rarely produces any of these effects, and if ever, only in a slight degree. In order to produce the full effect of the ether it is customary to reduce the patient to a state of stupor; the gas is capable of rendering the body entirely insensible to the pain of the most severe surgical operation, without putting the patient to sleep, or causing any stupor! We have often observed patients watch the progress of severe operations upon their own persons, with countenances as smiling and happy as if they were enjoying a delightful treat."

## PART V.—EDITORIAL.

## ARTICLE I.

## ON THE ORGANIZATION OF THE MEDICAL PROFESSION.

While physicians complain of the want of discrimination exhibited by the public in relation to the qualifications of medical men, whereby the ignorant are enabled to gain an extensive practice, and the better qualified are compelled to languish in neglect, they seem, for the most part, to forget that in cases where their own influence is concerned they have done nothing to remove so great an evil, but rather have aided in its perpetration. We allude now especially to the election of medical professors and the bestowing of patronage upon the schools to which they are attached without requiring any certain or public proof of fitness for such stations. These, and the situations of surgeons and physicians to hospitals are, under our present arrangements, the highest positions in the profession to which we can aspire, and nothing seems more reasonable than that they should be offered as rewards for the successful cultivation of science, and be open to any aspirant to professional eminence. But instead of this what do we see? The appointing power to these places is, in the United States, vested in about thirty-seven corporate bodies composed mostly of non-medical men ignorant of what constitutes a good professor, and of the relative standing of the various candidates who may present themselves. The greater number of these bodies are directly connected with some religious denomination, and think themselves bound to act for its advancement. What would be thought of an ecclesiastical body dependent for their election upon a body of lawyers or doctors? How could teachers of law, judges of courts, or high officers of any kind be chosen by corporate bodies, yet neither of these things would be more absurd than the present method of choosing medical professors. Those who are to choose have no certain means of judging of qualification. Those who are to be chosen have no means of demonstrating their



ability to teach. Candidates find that to cultivate the acquaintance of influential individuals is a more successful method of succeeding than to spend time in prosecuting scientific researches. Sectarian influences frequently prevail, and those of a personal nature are never entirely excluded. The hopelessness of success prevents most persons from making application, and acts as a practical exclusion of the great mass of the profession. The method recently proposed of advertising for applications and keeping them secret, while it proves that necessity for change has been felt, is insufficient, as it does not enable a correct judgment of the qualifications of a candidate to be formed.

Whence comes this absurd system by which those most interested and most capable of judging, are the only ones excluded from a voice in the choice of professors? It is a remnant of a system of government inherited from another country and from a half barbarous age. While in later times the vivifying effect of liberal institutions has been shed upon the mass of the population exciting them to activity and ambition, while exclusive privileges have been abrogated as pernicious, while the various professors and teachers have been called upon to make rules for their own government, the medical profession in our own country has slumbered under the forms of a past century. With no common head, without means of communication among its different parts, without association or organization, what could be expected but that it should exhibit, as it does at the present moment, a perfect image of chaos.

To centralize, to harmonize, to bring the different parts into communication with each other, to stimulate to activity the great body of practitioners and interest them in the progress of science—such are the first and most urgent wants of the medical public. They have been generally felt, and the assembling of a national convention, and the organization of a national association is the first step towards their relief. The action of this association thus far has been judicious and its influence salutary. But it will be of little avail unless the interests of the entire profession shall be represented and its wishes expressed. It is for this reason that we earnestly call upon the physicians of the north west

to organize themselves into associations for improvement and to have their representatives at the next meeting in Baltimore, instructed to vote for all measures calculated to elevate the profession but especially to call upon medical schools to adopt some method by which the merits of candidates for teachers' chairs shall be fairly tested by public trials. It is especially to physicians of this region that we look for such action ; as they are untrammelled by vicious forms and free to act for the public good without coming in conflict with long established interests.

It is not necessary for us to numerate, at present, all the different beneficial effects likely to result from the adoption of this system, or to answer all the objections which might be urged against it. It has a merit which its opponents can not deny, and what is in itself sufficient to secure its triumph, it is a perfect security against the success of persons who are incompetent or who have been guilty of disgraceful conduct. If any still have doubts upon the subject let them look at the system of *concours* and its effects in France and they will be speedily removed.

Lest some might suppose, from our frequent recurrence to this subject, that we are unduly attached to this "one idea," we will say in addition, that we regard it as but one of several improvements necessary to the proper improvement of the profession. It is scarcely necessary to add that we have no personal interest or feeling on the subject except what springs from a wish to subserve the interests of mankind at large. As at present constituted, the medical organization might justly be compared to that of inferior animals, where separate ganglia, remotely connected by nervous cords, support a moderate degree of vitality independent of each other for which state of imperfect life, we desire to see substituted one in which there shall be a nervous centre, active communication and mutual dependence between the different parts; in a word, that perfect state of development in which modern society reflects the image of man himself. D. B.



## ARTICLE II.

## HYDRIODATE OF POTASH IN ACUTE HYDROCEPHALUS.

We have received a letter on the use of Hydriodate of Potash in Acute Hydrocephalus, from P. A. Allaire, M.D.

Dr. Allaire, is not a believer in the efficacy of this medicine and supports his views by showing the inconclusiveness of the cases cited in its favor. In addition to this method, by which he very successfully shows that the evidence thus far adduced in its favor is not sufficient to establish its claims, our own experience has furnished us with two well-marked cases in which it entirely failed to produce the slightest effect. It is a disease of which the symptoms are often simulated by gastric and intestinal irritation and prostration; and in this region, very often by "miasma," or the unknown cause of intermittent and remittent fever. Of this kind Dr. Allaire thinks were the cases of Dr. Thompson Mead, reported in the last number of our Journal, and he attributes their cure to the judicious treatment employed in addition to the Hyd. Potass. D. B.

## ARTICLE III.

## MEDICAL LIBRARY AND READING ROOM.

The Editors of this Journal and the faculty of Rush Medical College have established a reading room for the use of the profession and medical students. It is located in Chicago, opposite the Post Office, on Clark Street. All the principal medical journals published in this country, and a good library may be found there. Physicians and students from abroad are invited to call at this reading room, which will, at all times, be open to them without charge. D. B.

## ARTICLE IV.

## PRIVATE HOSPITAL FOR THE INSANE AT CHICAGO.

Dr. Edward Mead, late of St. Charles, Illinois, has resigned his place in the medical department of Illinois College, at Jacksonville, and removed to Chicago, for the purpose of opening a private hospital for the insane. For immediate use he had taken a private dwelling where the patients may receive better care than at their own homes, and already has several cases upon his hands which were so urgent as not to admit of delay in treatment.

He has procured, in the vicinity of the city, twenty acres of ground, favorably situated, upon which he will proceed to erect suitable buildings for permanent use. This will be ready for the reception of patients during the approaching autumn. There is no hospital for insane persons, in operation, within several hundred miles of Chicago, and none in any part of the United States not already filled to overflowing, so that the establishment of this seems a matter of urgent necessity.

Dr. Mead has devoted much attention to the subject, and will have such attendants for his patients as will ensure their good treatment and comfort. The terms, we hear, will be four dollars per week ; or, with an especial attendant, ten dollars per week.

D. B.

## ARTICLE V.

## ACCIDENTS BY LIGHTNING.

Injuries and deaths from lightning are of such frequent occurrence in this country as to render the subject worthy the attention of the profession. We hear of such cases occurring in different parts of the country every little while during the summer season, yet so few of them come under



the observation of any one individual, that but little has been collated upon the subject. We have several interesting cases, but they are not sufficient of themselves to afford data for any general conclusions. To enable us to investigate the subject, we solicit, from our professional brethren, detailed histories of all such cases coming within their knowledge, of which they have reliable information; and if a sufficient collection of facts is made we will give the result of the inquiries we make, in the Journal.

The circumstances under which injuries have been received, the extent and symptoms, together with a detailed account of the treatment pursued, and its results, will be thankfully received.

E.

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ARTICLE VI.

SELLING A PRACTICE.

Fashions in the mode of business amongst medical men, as in drapery amongst the people, varies in different districts of the country.

In New England physicians sell their practice; as concluded from the following advertisement in the Boston Med. and Surg. Jour., and other evidence:

“An elderly physician, in Worcester county, wishing to relinquish business, offers his practice, and a small amount of real estate, on liberal terms,” &c.

In the western country, physicians would find *great difficulty*, if not in making out a bill of sale, at least in giving a clear and *indisputable* title in the transfer of their practice.

E.

## ARTICLE VII.

## ST. LOUIS MEDICAL AND SURGICAL JOURNAL.

Our Exchange bearing the above title, having completed its fourth volume, comes to us in a new and more beautiful dress and is hereafter to be issued every other month. The number before us (No. 1, Vol. V.) contains one hundred and four pages of interesting matter.

We hope it will find a justification of the additional pains with which it is got up, in a liberal extension of patronage.  
E.

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ARTICLE VIII.

## RUSH MEDICAL COLLEGE.

Four years have not yet elapsed since this institution, under the greatest difficulties, was organized in Chicago, then containing about eight thousand inhabitants. The project of a medical school in so small a town was regarded by many as chimerical and premature, because they had no conception of the prosperity and growth that awaited it. It was thought there could be no facilities for teaching practical anatomy and giving clinical instruction, which were in fact cogent reasons for doubting its success, as no school of medicine without them can properly teach these most important of all other branches of medical education.

But since, in the short space of time that has passed, the city has grown to number sixteen thousand inhabitants, and has established a hospital, (to which a lying-in department will be attached,) and a Dispensary; two charitable institutions for the treatment of the sick, to which students can have access, and in which regular instruction is given them by members of the faculty, it is conceded by all that Chicago is a most eligible site. And since the college has a commodious brick building, a library, extensive cabinets illustrating the several



branches of medicine and the collateral sciences, a good set of chemical apparatus, &c., which have been procured by persevering energy on the part of the faculty, with ample means for clinical instruction and an abundant supply of material for dissection, no one can doubt its success. And as the school has grown regularly and rapidly, keeping pace with improvements around it, its classes increasing with the increase of the means of instruction—the first, in the winter of 1843–4, numbering twenty-two, and the last, in 1846–7, but three years intervening, being seventy students, it must be considered a healthy growth.

The members of the faculty, with whom our readers have become somewhat acquainted through the Journal, being devoted to the profession and each to his particular branch, and being wedded in interest and inclination to the college, give a guaranty of its future onward course and its wide extended usefulness. E.

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#### ARTICLE IX.

#### NEW WORK

ON OBSTETRICS AND THE DISEASES PECULIAR TO WOMEN AND CHILDREN.

Having in process of preparation for the press a work on the subjects designated above, which is intended to be a compendious system of facts for the student and practitioner, and being desirous of rendering it more particularly useful to those of the great west, I take this method of soliciting the physicians of the western country to communicate to me the results of their observations upon the modifications that the diseases peculiar to women and children present, as they occur in their respective districts. Valuable aid of this kind shall be properly accredited in the body of the work.

JNO. EVANS.

## ARTICLE X.

## MEDICAL REFORM.

Professor Annan, of Lexington, Kentucky, a member of the late National Medical Convention, is out in the Western Lancet, against that body, in an article which has received the notice of many of our cotemporaries. The Annalist is particularly severe on it.

The sentiment that the community must be elevated before it is worth while for the physician to be educated thoroughly, because he will necessarily fall back to their level strikes us as most remarkable.

The objection to the recommendation of *Clinical Instruction*, because it is without the power of many of the schools to impart it, we think might bear on the teaching of many things universally regarded as important, with equal force, for many schools are quite defective. The following from a Philadelphia Journal is forcible and to the point:

"It is respectfully submitted that a school which proposes to educate *practitioners* of medicine, and cannot illustrate pathology with living cases, is bound either to close its doors or to announce that patients who employ its graduates must do so at their proper peril, regarding the title of doctor conferred by it as indicating no competency to treat disease."

But what surprises us most is that the editor of the Western Lancet should propose that Professor Annan's article gives the sentiments of the profession in the west. We are much mistaken if he is not. E.



## ARTICLE XI.

## MISCELLANEOUS INTELLIGENCE.

We observe by an advertisement that the chair of Theory and Practice, vacated by Professor Moorehead in the Medical College of Ohio, has been filled by the transfer to it of Professor Harrison from the chair of *Materia Medica*, &c., and the appointment of our cotemporary of the *Western Lancet*, L. M. Lawson, M.D., to the latter.

Samuel H. Dickson, M.D., of Charleston, S. C., has been the successful applicant for the vacant chair of Theory and Practice in the University of the city of New York. He is distinguished as a writer on Pathology and Therapeutics.

Professor Henry of Princeton, New Jersey, has been appointed to the chair of Chemistry in the University of Pennsylvania, vacated by the resignation of Dr. Hare.

E. Deming, M.D., has been appointed to the chair of *Materia Medica* in Indiana Medical College.

M. L. Knapp, M.D., has been appointed to the chair of *Materia Medica* in St. Louis University, vacated by the resignation of Professor Norwood.

The first graduating class of the Medical Department of the University of Buffalo, at its recent commencement, numbered seventeen students.

The yellow fever is prevailing to an alarming extent in New Orleans. It is worse, and commenced earlier in the season, than for a number of years past.

The ship fever has been very fatal for several months amongst the half-famished immigrants that are landing in crowds at all of our principal seaport towns, and at Montreal and Quebec in Canada. It is thought by many to be contagious. Those attending upon the sick have many of them been infected and died of the disease.

Two cases of small pox occurred at Indianapolis in June and July, but it spread no farther.

A physician in Georgia has discovered a process by which cotton, and we suppose all ligneous fibre, may be rendered incombustible at a very moderate expense. It does not destroy the texture of the cotton. E.

## NOTICE TO READERS AND CORRESPONDENTS.

We have received original communications from Drs. McLean, J. E. McGirr, and A. W. Benton.

The following works have been received :

Observations on Aneurism and its Treatment by Compression. By O'Bryen Bellingham, M.D., Edin., Fellow of and Professor in the School of the Royal College of Surgeons in Ireland, etc., etc. London: John Churchill, Princes Street, Soho. 1847. pp. 181, 12 mo. (Arrived too late to be noticed.)

Hand Book of Human Anatomy, General, Special, and Topographical. Translated from the original German of Dr. Alfred Von Behr, and adapted to the use of the English Student, by John Birkett, Fellow of the Royal College of Surgeons of England, and Demonstrator of Anatomy at Gray's Hospital. Phila.: Lindsay and Blakiston. 1847. pp. 487, 12mo. (From the Publishers, for sale by Joseph Keen, Jr., Chicago.)

A Treatise on the Practice of Medicine. By George B. Wood, M.D., Professor of Materia Medica and Pharmacy in the University of Pennsylvania, one of the Physicians to the Pennsylvania Hospital, one of the Authors of the Dispensary of the United States of America. In two vols. Philad.: Grigg, Elliot, & Co. 1847. vol. i, pp. 791, vol. ii, pp. 840, 8vo. (From the Publishers. For sale by A. H. & C. Burley, Chicago.)

Proceedings of National Medical Convention, held in New York May, 1846, and in Philadelphia May, 1847.

Some Account of the Letheon; or, Who is the Discoverer? By Edward Warren. Boston, 1847. Pamphlet.

Circular—Patent Letheon. Pamphlet.

Triumphs of "Young Physic," or Chrono-Thermal Facts. By Wm. Turner, Esq., A.M., M.D. New York. Pamphlet.

Annual Circular of the Medical Institution of Geneva College, Session of 1847.

Catalogue and Circular of the Albany Medical College, 1847.

Annual Announcement of Rush Medical College, Chicago, Ill., 1847.

Annual Announcement of the Medical Department of the St. Louis University, 1847.

The Harmony of Creation. An address delivered before the Medical Department of the Western Reserve College, Cleveland. By Rev. Elijah Burrows.

Catalogue of the Medical Department of the University of the State of Missouri, 1847.

Catalogue of the Trustees, Officers, and Students of the Indiana Medical College, Session of 1846-'47.

A Practical Treatise on the Diseases of Children. By D. Francis Condie, M.D., Secretary of the College of Physicians; Member of the American Philosophical Society; Honorary Member of the Philadelphia Medical Society, etc. Second Edition, Revised and Augmented. Philadelphia.: Lea & Blanchard. 1847. 8vo, pp. 657. (From the Publishers. For sale by Joseph Keen, Jr., Chicago.)

The Medical Students' Vade Mecum, or Manual of Examinations upon Anatomy, Physiology, Chemistry, Materia Medica, Surgery, Obstetrics, Practice of Medicine, (including Physical Diagnosis and Diseases of the Skin,) and Poisons. Second Edition, Revised and Enlarged. By George Mendenhall, M.D., Lecturer



on Pathology in the Medical Institute of Cincinnati; Member of the Philadelphia Medical Society. &c., &c. Philadelphia: Lindsay and Blakiston. 1847. pp. 574. (From the Publishers.)

Medical Botany; or Descriptions of the more important Plants used in Medicine, with their History, Properties, and Mode of Administration. By R. Eaglesfield Griffith, M.D., Member of the American Philosophical Society; of the Academy of Natural Sciences of Philadelphia, etc., etc.; with upwards of three hundred illustrations. Philadelphia: Lea & Blanchard. 1847. 8vo., pp. 704. (From the Publishers, and for sale by Joseph Keen, Jr., Chicago.)

A Practical Treatise on Inflammation, Ulceration, and Induration of the Neck of the Uterus, with Remarks on Leucorrhœ and Prolapsus Uteri, as Symptoms of Uterine Disease. By James Henry Bennet, M.D., Licentiate of the Royal College of Physicians, &c., &c. Philadelphia: Lea & Blanchard. 1847. pp. 146. (From the Publishers, by Joseph Keen, Chicago.)

Poisonous Effects of Quinine. By W. O. Baldwin, M.D., of Montgomery, Alabama. Pamphlet.

We have received in exchange the following periodicals:

Ranking's Half-Yearly Abstract of the Medical Sciences.

The American Journal of the Medical Sciences.

The Medico-Chirurgical Review and Journal of Practical Medicine.

Braithwaite's Retrospect of Practical Medicine and Surgery. Part xiv.

New York Journal of Medicine, etc., New York.

The Annalist, a Record of Practical Medicine, New York.

New York Medical and Surgical Reporter, New York.

The Medical Examiner, etc., Philadelphia.

The Medical News and Library, Philadelphia.

The Western Journal of Medicine and Surgery, Louisville, Ky.

The Western Lancet and Medical Library, Lexington, Ky.

The Southern Medical and Surgical Journal, Augusta, Georgia.

The Boston Medical and Surgical Journal, Boston, Mass.

The Missouri Medical and Surgical Journal, St. Louis, Missouri.

The St. Louis Medical and Surgical Journal, St. Louis, Missouri.

The Practical Educator and Journal of Health, Boston.

Stockton and Co.'s Dental Intelligencer, Philadelphia.

Dublin Medical Gazette.

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# COLLEGE OF PHYSICIANS AND SURGEONS OF THE UNIVERSITY OF THE STATE OF NEW YORK.

The Forty-First Session of the College will be commenced on Monday, 18th October, 1847, and continued until the second Thursday in March, 1848.

ALEXANDER H. STEVENS, M.D., President of the College and Emeritus Professor of Clinical Surgery.

JOSEPH M. SMITH, M.D., Professor of the Theory and Practice of Medicine and Clinical Medicine.

JOHN B. BECK, M.D., Prof. of Materia Medica and Medical Jurisprudence.

JOHN TORREY, M.D., L.L.D., Professor of Botany and Chemistry.

ROBERT WATTS, Jr., M.D., Professor of Anatomy.

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CHANDLER R. GILMAN, M.D., Professor of Obstetrics and Diseases of Women and Children.

ALONZO CLARK, M.D., Lecturer on Physiology and Pathology (including Microscopy).

GUSTAVUS A. SABINE, M.D., Demonstrator of Anatomy.

**FEES**—Matriculation Fee, \$5; Fees for the full Course of Lectures, \$108; Demonstrator's Ticket, \$5; Graduation Fee, \$25; Board, average \$3 per week.

Clinical Instruction is given at the New York Hospital daily, by the Medical Officers, (Professor Smith being one of them,) fee \$8 per annum; at the Eye Infirmary, without fee; and upwards of 1000 patients are annually exhibited to the class in the College Clinique. Obstetrical cases and subjects for Dissection are abundantly furnished through the respective departments.

The Annual Commencement is held on the second Thursday in March; there is also a Semi-annual Examination in September. The requisites for graduation are—21 years of age, three years of Study, including two full courses of Lectures, the last of which must have been attended in this College, and the presentation of a Thesis on some subject connected with Medical Science.

In addition to the regular Course, and not interfering with it, a course of Lectures will be commenced on Monday, 27th September, and continued until 18th October, viz:—

Hygeine,	-	-	-	-	by Dr. Smith.
Medical Botany,	-	-	-	-	by Dr. Torrey.
Hernia,	-	-	-	-	by Dr. Watts.
Treatment of Infantile Diseases,					by Dr. Gilman.
Physiology of the Blood,					by Dr. Clark.

This Course will be free to the *Matriculated* Students of the College.

R. WATTS, Jun., Secretary to the Faculty.

College of Physicians and Surgeons, }  
67 Crosby Street, New York. }

## RUSH MEDICAL COLLEGE. CHICAGO, ILLINOIS.

The Annual Course of Lectures of this Institution, for the session of 1847-8, will commence on the First Monday of November, and continue sixteen weeks.

DANIEL BRAINARD, M.D., President and Professor of Surgery.

JAMES V. Z. BLANEY, M.D., Professor of Chemistry and Pharmacy.

JOHN McLEAN, M.D., Professor of Materia Medica and Therapeutics.

W. B. HERRICK, M.D., Professor of Anatomy.

G. N. FITCH, M.D., Professor of Institutes and Practice.

JOHN EVANS, M.D., Prof. of Obstetrics and Diseases of Women and Children.

Ticket fee of each Professor, \$10. Dissecting ticket, \$5. Hospital ticket, \$5. Matriculation ticket, \$5. Graduation fee, \$20. The Dissection and Hospital tickets are optional with the student to take or decline.

Good boarding, with room, fuel, lights and attendance, may be obtained, in Chicago, at from \$1 50 to \$2 50 per week.

For further information address

JAMES V. Z. BLANEY, M.D., Dean, Chicago, Ill.



THE  
ILLINOIS AND INDIANA  
MEDICAL AND SURGICAL JOURNAL.

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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

*Tannate of Quinia.* By JOHN McLEAN, M. D., Prof., &c.

Tannic acid has a powerful affinity for quinia, and produces by union with it an insoluble tannate. So readily do they unite, that it becomes one of our most delicate tests for the presence of this alkali. When a solution of the sulphate is so largely diluted that the addition of ammonia will scarcely produce any cloudiness of the solution, tannic acid will cause a copious flocculent precipitate of the tannate of quinia.

Sweden has a law, that all cinchona bark imported into that country shall be tested by an infusion of galls, and if it does not produce a precipitate of tannate of quinia, the bark is rejected as worthless. Here, I would make the remark, that much of the pulverized bark found in the shops of this country, is nearly, and in many cases entirely destitute of quinia, which may readily be determined by this simple test.

The best cinchona barks contain cinchonia quinia and tannic acid, with several other proximate principles; but the acid, owing to some peculiarity, or to its action being modified by some other constituent of the bark, does not

chemically unite with the vegetable alkalies. The term tannic acid is not applied to any one proximate principle, invariable in its character and composition; but to a set of substances somewhat different in their nature, but closely allied to each other, and possessing in common many properties. The tannic acid obtained from certain vegetables, when mingled with a solution of a sesquisalt of iron produces a dark brown precipitate and colors the liquid blue; but when obtained from certain other vegetables, it produces a grayish-green precipitate with the same solution, and colors the liquid green. The first is found in galls, and the different species of oak; the second in Peruvian bark, catechu and various other vegetables.

Nut galls contain a large proportion of tannic acid and yield it more readily than any other vegetable matter, hence, it is more frequently obtained from this source than any other, and is frequently distinguished by the name of galls-tannic acid.

*Preparation.*—Tannate of quinia may be prepared, by adding to an infusion of cinchona, an infusion or tincture of galls, so long as any precipitate is produced. When thus prepared it is quite impure, containing coloring and other matters. It may however be obtained pure, directly from the bark by a process more complicated. The readiest, although not the cheapest method of procuring the pure article, is to precipitate it from a clear solution of sulphate of quinia, by adding that of tannic acid, so long as any precipitate is produced, which when dried is fit for use. This is the method I have usually followed in preparing the article for my own practice.

The disulphate of quinia is compounded as follows:

	Atoms.	Eq. vol.
Sul. Acid,	1	40
Quinia,	2	324
Water of chrystallization,	8	72
<hr/>		
Chrystallized disulphate of quinia,	1	436

Now, in order to form the tannate, two atoms of tannic



acid are required, to unite with two of quinia, in the one equivalent of the disulphate (the atomic weight of which is 436). The atomic weight of tannic acid being 212, that of two, would be 424, which would give us nearly equal parts of it and the disulphate; but in consequence of the impurity of the tannin of commerce, a much greater proportion of it is required.

Tannate of quinia is composed as follows:

	Atoms.	Eq. vol.	per cent.
Quinia,	1	162	43.31
Tannic Acid,	1	212	56.69
<hr/>			
Tannate of Quinia,	1	374	100.00

From the above it will be seen that more than half of it is composed of tannic acid.

*Properties.*—Insoluble in water; soluble in acetic and muriatic acids; has a yellowish white color and a slightly bitter taste.

*Medical properties and uses.*—Dr. Otto affirms that he has cured obstinate cases of intermittents by the agency of this preparation, which had resisted the use of sulphate of quinia and other powerful remedies. He also states that he found it very useful in typhus, general weakness, and tendency to putrescency, where the sulphate of quinia seemed to be ineffectual. (See *Dunglison's New Remedies*, page 534.)

The experiments of Dr. Nonander, Secretary to the Swedish Medical Association, go to establish the belief that the tannic acid of the cinchona is necessary to their full febrifuge powers.

Pereira, in his work on *Materia Medica*, vol. 2, p. 437, says: "The tannate of quinia is declared, by Dr. Nonander, of Stockholm, to be the most powerful of the quinia salts. The tannic acid, though not the peculiar febrifuge constituent of cinchona bark, yet contributes to its tonic powers, and thereby promotes the activity of the alkaloids. This statement is supported by the already referred to remark of Berzelius, (see p. 432,) that the most active cin-

chonas are those which contain the largest quantity of tannin."

"There exists a law in Sweden," (says Berzelius, *Traité de Chim.* v. 587,) "in virtue of which every cinchona bark imported into that country is tested by the infusion of galls, and the porsulphate of iron, a solution of gelatine and emetic tartar; and it is proved by an experience of more than sixteen years, that the most efficacious bark is that which precipitates the most strongly a solution of gelatine and emetic tartar; in other words, that which contains the most tannin." (Pereira's *Mat. Med.* vol. 2, p. 432.)

Dr. Hauff has recently administered this preparation in intermittent neuralgias and fevers, and succeeded in cases where the sulphate of quinia had failed. (See *Ranking's Half-Yearly Abstract* for July-Dec. 1845, p. 346.)

In the summer of 1846, I was first induced to use it, in intermittents accompanied with diarrhoea and an irritable condition of the stomach, and the result was so favorable that I not only continued its use in such cases, but extended it to simple intermittents, and that state of general weakness, accompanied with a relaxed surface and profuse perspiration, which frequently is a sequence of this disease. In every case of simple intermittents, where it was administered, the disease was as readily arrested as it would have been by the use of the sulphate. I have used it in many cases of intermittents, and have known of its being thus employed by others, and generally with the same result.

When given for a considerable length of time, it did not produce any constipation. There is but little to be feared from this effect, for the astringent properties of the tannic acid is greatly modified by its chemical union with the quinia. When administered in intermittents, accompanied with diarrhoea and an irritable stomach, we do not give it in preference to the sulphate on account of any astringent effect it may exert upon the bowels, but because it is less apt to irritate the already irritated mucous membranes. If, while using this preparation, it becomes necessary to obtain the astringent effects of tannin upon the bowels, it



should be given in extra doses; and if while using the sulphate, (as it will chemically combine with the quinia,) it should be given in such quantities as to be in excess.

It is particularly serviceable in those cases of debility, attended with profuse perspiration, which frequently follows intermittent fevers. I have given it in cases of this kind with great benefit, and think it much better than the other salts of quinia, having arrested the profuse perspiration, and produced a more healthy action of the surface with this than with any other article. Where the use of quinia has been indicated in cases of anemia, accompanied with an irritable state of the stomach and bowels, this preparation has been used with a happy effect. Although having used it to some extent in cases of protracted intermittents, I have not tested it sufficiently, to speak of its powers in such cases, of permanently arresting the disease.

If this is not a more powerful febrifuge than the sulphate, there are several conditions in which it might be used to a greater advantage.

Its nearly tasteless quality, (it possessing but a very slight degree of bitterness,) renders it particularly valuable for the use of children, and such others as possess an irritable stomach, and to whom the sulphate of quinia becomes disgusting on account of its bitter taste.

As this salt is soluble in muriatic and acetic acids, its effects may be quickened by giving a weak solution of either soon after it is taken. This article is easily prepared, and might be afforded at a much cheaper rate than the sulphate.

*Dose.*—The same as of the sulphate of quinia.

Jackson, Mich., Aug. 24, 1847.

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## ARTICLE II.

*Etherization applied to Midwifery.* By J. E. MCGIRR, A. M., M. D., Chicago.

The application of ether for the purpose of obviating the throes of Parturition, has furnished to eminent European

accoucheurs, a theme for discussion, speculation, doubts, and hopes. The celebrated Paul Dubois and Prof. Simpson, deemed it not beneath the dignity of their positions to institute a series of experiments, in order to determine whether the application could be successfully made. These distinguished professors differ in their expectations of the benefits to be derived from it, and, while all are yet in doubt as to its ultimate applicability, a few observations upon the process and Reflex Physiology of Parturition, may afford some ground for basing an opinion. When I say Reflex Physiology of Parturition, I am aware that I am upon debateable ground, such a term not being used in the approved treatises on Obstetrics. But that parturition is clearly a reflex act, the discoveries of Dr. Marshall Hall clearly demonstrate. This subject I intend to consider at some other time. It is by the effects which ether produces upon parturition with reference to this physiological distinction, that the claims of the remedy will be in a great measure decided.

We should carefully examine whether there are any changes, any additions to, or subtractions from the ordinary process of parturition effected by etherization, and then the question will arise, whether such changes, if any, are for good or evil. Etherization is a "new condition of the nervous system," and we should, therefore, note the manner in which the different divisions of that system are affected by the process. These divisions are the cerebral, spinal and ganglionic.

First as to the cerebral, on which the ether soonest and most easily manifests its influence. *Sensation* is temporarily impaired, or abolished. *Volition* is suspended; and though violent and spasmodic actions of the voluntary muscles may take place, they are irregular. *Emotion* also is letheonized.

We have here, then, sensation, volition and emotion suspended, and it becomes therefore necessary, in limine, to consider what are the uses of these acts in the important process of parturition, with which they are so closely allied!



In the last stage of labor, when the motor power is very great and laceration is imminent, sensation and emotion are the safeguards. In this stage, all the actions being reflex, their violence cannot be controlled by the will; and when the pain is almost intolerable, the patient under the influence of emotion, cries out, by which act she opens the glottis, thus taking away all expiratory pressure and leaving the uterus free to act alone. In the last agonies, when the laceration of the perinæum would seem unavoidable, the same cause opens the Sphincter Vesicæ, thereby obviating the danger. Thus much for sensation and emotion, while volition, in the expulsive stage, after the os uteri has been fully dilated, increases the effects of expiration and the power of the abdominal muscles, fixing the thorax and pelvis. It is, therefore, evident that sensation, emotion and volition, are important functions in the process of parturition.

Parturition produces, like a surgical operation, a shock upon the system, and many cases are recorded where death has been evidently the result of this shock. This may occur in any case, even when there is reason to expect a very different result. We have no possible way of avoiding it. And shock is not confined to the brain alone, it is composed of several elements; "those which are really referable to the cerebrum and to the medulla oblongata, which partakes of the nature of brain and spinal marrow—for here the cerebral and spinal systems seem fused—are pain and emotion, and the effects of these depend on the perfect presence of consciousness, and the perception of physical suffering."

Physical pain then is an element of shock in parturition as well as in surgical operations. The severity of the shock is proportioned to the depressing effects of the pain endured.

Emotion constitutes, as observed already, an element of shock. Many persons die from the effects of emotion alone. These two elements of shock, viz: pain and emotion, disappear upon etherization, and it remains to be seen, therefore, whether this partial deliverance is not outweighed by countervailing evils.

The influence of shock upon the spinal marrow, the seat

of reflex function and of the ganglionic system, is still greater. An experiment will illustrate this: Remove the contents of the cranium of a frog, leaving the circulation sound; then crush a leg of the animal with the stroke of a hammer, and at once the heart's action ceases, and no irritation can produce reflex action. There being here neither brain nor sensation, the effects of shock upon the medulla spinalis are evident. Again, men have been known to fall suddenly upon the field of battle, desperately wounded, while they were unconscious that there was anything wrong with them. They fell not from pain, nor loss of blood, but from the effects of shock upon the spinal marrow and ganglionic system. Thus their shock affects the spinal marrow independent of sensation or pain, and those that have lauded the use of ether as a means of obviating the shock in operations, have certainly paid no attention to the fact that shock may be produced even in a state of insensibility.

In treating upon the applicability of ether to midwifery, we must notice the therapeutical effects of the remedy upon the brain and spinal marrow. Dr. Ranking found that it increased the spasms of Tetanus. It has been found injurious in hysterical and epileptic seizures, and cases are recorded, in which convulsions resulted from its use. Baron Dubois describes one of the subjects of his experiments, as affected with the most intense premonitory signs of convulsions: "So great," says he, "was the congestion, that I expected her eyes to syringe forth blood." Now, there is no state of the system in which there exists so great a tendency to cerebral congestion, as in that of pregnancy, and weighty indeed should be the reason that could induce any practitioner to add so powerful a stimulant to the utero-spinal excitements of labor.

What benefits then has parturition to expect from etherization, and what dangers has it to fear? Pain and emotion, we have seen, are destroyed; most of the shock that depends upon pain and emotion is no longer felt; but volition, and the salutary influences exerted by pain and emotion upon the motor actions of labor, perish likewise;—



while the whole of those elements of shock that depend upon the spinal marrow and the ganglionic system, are still present in all their intensity. This danger of the physical shock of parturition would thus be added to the shock or collapse occasioned by the ether itself, while the likelihood of convulsions would be much increased. That collapse follows the use of ether has been established by recorded cases, and it is now a settled point that this danger is to be feared even in surgical operations. Dr. W. T. Smith, in his excellent lecture on the inhalation of ether, has noticed several cases. The bare possibility then of producing symptoms, such as stentorous breathing, and pulmonary and cerebral congestion, convulsions, and death by the use of remedial agents, would be enough to make the most daring pause, and consider well what advantages could compensate for so much risk. Strychnia, produces convulsions; opium, cerebral congestion, digitales, retardation of the heart's action—and how carefully does the teacher of therapeutics lay down rules and cautions for our guide in administering these, and yet ether produces the effects of the three; still it is indiscriminately prescribed and lauded, for its safe and certain effects, by those who should know better. It has been argued, that when fatal results have followed, the use of this remedy has been continued too long; but it does not appear from any of the recorded fatal cases, that it was inhaled longer than was necessary to produce insensibility, and in some cases death occurred when there was not entire insensibility during any part of the process.

The important question then, when can ether be safely administered, has yet to be decided.

Baron Dubois communicated, to the Academy of Medicine in Paris, the following results of his experiments on the application of this remedy to parturition. He says :

1st. That the inhalation of ether has the power of preventing pain during obstetric operations.

2d. That it may also momentarily suspend the natural pains of labor.

3d. That the state of ebriety induced by the inhalation of ether does not suspend uterine contraction, when the latter has decidedly set in and takes place at short intervals; and that it does not impede the synergetic action of the abdominal muscles.

4th. The state of ebriety appears to lessen the natural resistance which the perinaeal muscles oppose to the expulsion of the head.

5th. That the inhalation of ether has not appeared to exert any bad influence over the life or health of the child.

Notwithstanding the Baron came to these conclusions, he, after noticing the fatal result of three of his cases, concludes his memoir thus emphatically: "My profound feeling on the subject is, that inhalation of ether in midwifery should be restrained to a very limited number of cases, the nature of which ulterior experience will better allow us to examine."

As to the first conclusion; the application of the forceps, is adduced as one of those operations in which this process is so important. But how much mischief might not an unskilful operator inflict upon a patient whose sensibility was destroyed. The measure of her pain, in such hands, would be the measure of her safety; for if she were not sensible to pain, the os uteri might, just as likely as not, be embraced with the presenting part. While such danger is not imaginary in unskilful hands, the skilful operator needs no such auxiliary to render his success certain and almost painless. So of the other operations. M. Stoltz, of Strasburg, says: "that etherization does not lessen the resistance of the uterus to the introduction of the hand within the cavity, nor does it facilitate the version or expulsion of the child."

As to the third observation: if the uterine contractions continue in all their natural violence, we have already seen the dangers that the suspension of those important auxiliaries to parturient action, viz: pain, emotion and volition, would render almost certain. Such being the facts with respect to two of his conclusions, how comparatively unimportant are the rest!



Who, then, will point out to us the cases, when this important remedy can be safely used to mitigate the sufferings of the parturient! Certainly, no greater boon could be conferred upon mankind. It is no pleasant task to be obliged to treat thus despondingly of a remedy which promised so much that was good; but those who woo science must take her as she presents herself, not as they would have her appear, and truth must be written even against inclination.

It is humiliating to American medical talent, that while the discovery of the long sought *Letheon* is our own, we must look to Europe, king-ridden Europe, where body and mind are in bondage, for the experiments and physiological facts, that teach how and when safely to apply our own discoveries. This should not be; and I trust the time is not distant when a different organization of the profession will guarantee other results, when European philosophers will look to America as the land of the empire of mind as well as of physical power. *Animus homini quic-quid sibi imperat, obtinet.*

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### ARTICLE III.

#### STRYCHNINE IN FEVERS.

*Messrs. Editors:*—I understand there is an editorial article in the last Journal, (which I have not seen) on the same, or a similar subject to the heading of this article. The following, however, are the facts which I have been some time in collecting in relation to the use of strychnine to allay certain symptoms in fever.

In the "Bulletin of Medical Science" for May, 1846, is a short article communicated by me on the same subject. Since then I have had more extended experience in its use, and am happy to say it has never disappointed me in its operation.

The particular symptom for which I have given it is coma, as we often see it in our autumnal fevers.

When coma comes on in the course of a fever, without any organic lesion of the nervous centres, I give strychnine with the utmost confidence of its relieving that symptom, if the patient is not already beyond the reach of all medicine. I have never given it in but two cases that terminated fatally; in both the patient came out the coma, and remained so till a few hours before dissolution.

In cases of great languor and lassitude, with a tendency to stupor, it has the happiest effect. It seems to arouse the energies, and give tone and vigor to the whole nervous system, and particularly to that portion which presides over all the voluntary functions.

It seems to prepare the system, (in connection with alteratives,) more effectually, for the successful operation of quinine in permanently breaking up the paroxysms of remittent or intermittent fevers, than any medicine I know of.

To relieve coma, I give it in 1-12 of gr. doses every six hours, and in bad cases every four hours.

The *modus operandi* of the two articles, strychnine and quinine, in the cure of fevers of the adynamic type seems to me to be as follow: strychnine furnishes the system with the appropriate material for generating the nervous power, and quinine furnishes the blood with the appropriate material for stimulating, or calling that power into action. I have designedly made this article short, supposing that ideas, and not words, are what you most desire for publication.

Yours, &c.

A. W. BENTON.

Sterling, Aug. 3, 1837.

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#### ARTICLE IV.

*Surgery at Buena Vista.* By W. B. HERRICK, M. D., Professor of Anatomy in Rush Medical College, and late Surgeon 1st. Regiment Illinois Volunteers.

Our small army, of about 5000 only, mostly volunteers, under the command of Gen. Taylor, was occupying the position of Agua Nueva, ten miles from San Louis Potosi,



when it began to be reported in camp that Santa Anna, with a force of more than 20,000, was on his march from the latter place to attack us.

Rumors of the enemy's advance had arisen frequently, and caused so many false alarms in camp during the winter, that but little credit was given to this report, until after the return of one of our reconnoitering parties with the report of having actually passed through the enemy's encampment not sixty miles from us, and within one day's forced march of our position.

Early on the morning of the 22d, Santa Anna arrived at Agua Nueva, at which time and place he had evidently intended to attack us. But in this he was disappointed by a prompt movement of our commanding general, who had in the mean time abandoned this comparatively weak position, leaving a few waggons and some stores in order to give the appearance of his having retreated precipitantly, and taken possession of the pass near the place, now so justly celebrated, called Buena Vista.

By dawn of day on the morning of the 22nd, all our pickets had been driven in by the advance of the Mexican army, and by ten o'clock, A. M., the main body could be plainly seen from our position, advancing in dense columns, marked by clouds of dust, extending as far as the eye could reach.

During this time an occasional volley of musketry could be heard, showing that skirmishing had commenced between our small detachments stationed at our outposts and the enemy, but as yet no wounds had been received on our side requiring the attention of surgeons.

It was soon discovered that the front of the enemy's advancing column had halted about a mile from our position, for the purpose, as was evident, of allowing time for the divisions still in the rear to arrive and take their positions in the vast line, which continued to lengthen till it had extended itself from left to right, across the valley, to the very base of the mountain, a distance of nearly a mile.

The first demonstration of the enemy against our line,

was an attempt made by them to get possession of a spur of the mountain which commanded our left flank. To oppose this movement, a detachment of our riflemen was sent to occupy a like elevation to the left of our line, with orders to oppose, and if possible, to drive them from the position.

It was between these two detachments that the action commenced on the afternoon of the 22nd, and continued till dark of that day.

The wounds received, upon this first day of the battle, were mostly from spent balls, but few proving serious, and not more than two or three fatal. The extraction of a few balls, and the application of simple lint and bandaging was, therefore, so far as I know, all the surgical aid required on the evening of the 22nd.

By dawn of day on the 23d the action was again commenced between the two contending parties, both of which had kept their respective positions upon the mountains during the night; and by nine o'clock the whole enemy's force was seen advancing to attack us.

The different surgeons, with their stewards and such others as had been detailed to assist in taking care of the wounded, had already stationed themselves at convenient points near their respective regiments, ready with a plentiful supply of instruments, ligatures, bandages, splints, &c., for the arduous and responsible duties of the day.

Up to this time we had had leisure to watch the movements of the enemy, and time to indulge in some not very pleasing anticipations with regard to the result of the approaching contest. The action however soon commenced, as it seemed to us by a simultaneous discharge of musketry from both the opposing lines, and in a short time after, all thoughts upon other matters had vanished to give place to feelings of responsibility, and intense anxiety to determine correctly what to do in some cases, and what attempt in others, where to cut for a ball, and how to dress a fracture; or in case of shattered limbs, if to amputate at once, or attempt to save them.

From the hour of the attack, made upon us by the main



body of the enemy in the morning, up to a time long after their retreat at night, the labor, both of body and mind, of every surgeon upon the ground, was both unremitted and constant; for it was constantly happening during the day, that long before all the cases consequent upon one charge upon the enemy could be disposed of in the most cursory and hasty manner, another desperate onset would be made to add to the number of the unfortunate still lying around us, waiting for surgical aid. Surgeons upon every part of the field were constantly being called on, amidst the din of battle, and frequently in positions as exposed as any, to attend to important cases—requiring good judgment and the best professional skill.

It would naturally be supposed that at such a time, and under such circumstances, many cases must have been entirely neglected, or if not, improperly treated. It gives me pleasure to say, on the contrary, that the opportunity which I had the day after the battle, of seeing most of the wounded and assisting in dressing such wounds as required attention, enables me to state that such cases were extremely rare.

The most common practice adopted by the different surgeons upon the field, was, in cases of gun shot wounds, to extract, if possible, all foreign substances, and in cases where balls could be felt, too far from the external wound to admit of the use of the forceps, to cut for and extract them. A simple pledget of lint, and bandage, were, in most cases all the dressings used or required. In some few cases compresses and tight bandaging were necessary to arrest hemorrhage. But few, if any cases, that I am aware of, required ligation of an artery to stop bleeding; a fact easily accounted for, when we recollect, that the divided extremities of vessels in gun-shot wounds are necessarily jagged and contused—a condition as is well known favorable to the coagulation of the blood within them, and consequently, to the prevention of hemorrhage. In cases of fractures, most of which were necessarily both compound and comminuted, the common practice was to extract all pieces of bone that were found so detached as to endanger

their vitality, and to remove, as in flesh wounds, all foreign substances that could be readily found, and then to apply bandages and splints, as a temporary means of preventing motion between the fractured ends.

With regard to amputations upon the field, the rules generally adopted—were to amputate at once whenever the principal vessels and nerves of a limb had been destroyed, in cases of a fracture where the bones were found very much shattered, and in instances where important joints had been much injured.

In connection with this subject, I will remark that the result of my experience, both upon the field and in the hospitals after the battle, is to convince me that the surgeon's most responsible and important duty upon the field, is to determine in the different cases when to attempt to save a limb, and when to amputate; for in a great majority of instances, so far as my knowledge extends, primary amputations were followed by favorable, and secondary by unfavorable results.

In regard to the primary treatment of gun-shot wounds, I will state, that if any mistake was committed by the surgeons, myself included, it was, in my opinion, in not being particular enough to explore thoroughly the cavities and free them from all foreign substances, such as bits of lead, cloth, paper, &c., the presence of which proved so troublesome during the subsequent treatment.

In making these remarks I do not wish to convey the impression, or express the opinion, that this apparent defect in the primary treatment was on account of carelessness or neglect on the part of myself or others; my only object in referring to the matter is to direct the attention of surgeons to the importance of devising some other means of freeing gun-shot wounds of foreign substances than those usually recommended and adopted. A simple instrument, similar to the probang used for dislodging extraneous substances from the œsophagus, for instance, might be used to cleanse all wounds admitting of its passage directly through them, excepting, perhaps, those involving important cavities.



The above remarks, hastily drawn up from memory, may serve to give our readers some conception of a surgeon's labor and responsibility upon the field. We are aware, however, that they have been altogether too general in their character to be of much professional utility, or to justify us in continuing them further at this time.

If we can hope for further indulgence from our readers, we propose to occupy a few pages in a subsequent number of the journal with a continuation of our remarks upon the after treatment, and the results of our experience in the hospitals at Saltillo.

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ARTICLE V.

KENDALVILLE, Noble Co., Ind., Sept. 21, 1847.

To the Editors of the Ill. and Ind. Med. and Surg. Journal.

GENTLEMEN,—Below I send you a statement of a case of "Glossitis," which may not prove uninteresting to many of the readers of your valuable Journal. Should you consider it worthy of a place in the columns of your Journal, you will oblige a friend and subscriber by inserting it.

Yours, &c.,

T. P. B.

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*A Case of Glossitis—Maltreatment, nearly resulting in death.*

By T. P. BICKNELL, M. D.

E. W——th, a lad æt. 12, was attacked about two weeks since by this rare, although not to be mistaken disease. A quack was called in, who came to the wise conclusion that it was a "difficulty!!" in the mouth!!! and ordered poultices under the chin; saying, that he "would draw it to a head, then he could let the matter out, and thereby effect a cure!!!"

The child grew worse rapidly; the friends became alarmed, and in about six days from the commencement of the disease, I was called to see him. I found the tongue hot, red and swollen, filling the whole cavity of the mouth, and thrust out between the teeth, appearing like a mass of

raw flesh!! The respiration was extremely difficult, deglutition almost impossible. I immediately made two deep incisions into the substance of the tongue, from which issued nearly a pint of dark, grumous blood, with evident relief; prescribed nauseating doses of Vinum Antimonii every hour, and left him quite comfortable. In about three hours the incisions closed and the tongue rapidly increased in size. The quack was again called, who persuaded the friends that I was killing the child. Another quack was sent for in order to hold a consultation! They agreed as to the "difficulty!" and sagely concluded that there was matter under the chin, "which must be let out." They then proceeded to puncture under the chin, and of course found no "matter;" but told the friends there would be plenty of "matter" in a few days.

The child grew worse, and was momentarily in danger of suffocation. The father came to me about twelve hours after the puncture under the chin had been made, and with tears in his eyes implored me to take charge of the patient, saying that he was satisfied the child must die under their course of treatment.

At this late period I again took charge of him. With a scalpel introduced flatways between the tongue and the teeth, I made two deep incisions nearly dividing the whole substance of the tongue from the root to the tip, from which again issued above a pint of dark offensive grumous blood, which afforded almost instantaneous relief. In twenty hours he could shut his teeth over his tongue, and articulate distinctly; on the third day he was nearly well, the incisions in his tongue healing kindly.

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#### ARTICLE VI.

*Case of Accumulation of Fluid in the Ureter and Pelvis of the Kidney, upon the right side, of long standing; followed by retention and suppression of urine, acute inflammation of the bladder and left kidney, terminating in suppuration and*



*death.* By W. B. HERRICK, M. D., Professor of Anatomy in Rush Medical College.

On the 10th. of September I was called, late at night, to see a Mr. L——, who informed me that he had once had an attack of fever attended with tenderness and severe pain in the right lumbar region, and that frequently since then, micturition had been painful and difficult.

At the time I was called, he had had retention of urine for forty-eight hours previous. During this time an unsuccessful attempt had been made, by a physician in the country, to introduce an instrument into the bladder, and what was worse, he had been permitted to ride in a stage coach over rough roads, more than twenty miles, to this city, for the purpose of seeking relief.

I found him, as I anticipated after hearing the above account, suffering most intensely from pain in the pelvic region, with tongue and skin hot and dry, and an irritable pulse ranging from 120 to 130.

By means of a gum elastic catheter, introduced with ease and without giving much pain, about a pint of high colored urine was drawn from the bladder.

This small quantity, the only discharge for forty-eight hours, was by no means equal to the amount usually evacuated after retention that length of time. A fact which led to the conclusion at once, that suppression existed as well as retention.

After this evacuation the pain and other bad symptoms were to some extent relieved, still, however, at intervals of about every ten minutes, spasmodic contractions of the bladder would return, and with them, much of the distress which previously existed.

Diluents, diuretics and anodynes were used freely, together with warm fomentations applied externally to the region of the bladder. But the relief obtained by their use was only temporary, for in a few hours all the inflammatory symptoms returned very much aggravated, and by the morning of the 11th, the pain and tenderness in the region of the bladder had become very much aggravated, the skin

and tongue dry, the pulse full, and ranging again from 120 to 130.

These aggravated symptoms were promptly met by a full bleeding to an extent to produce faintness and a weak and soft pulse, and by the administration of cathartics sufficient to produce full and free evacuations, followed by anodynes, diluents, diuretics and warm fomentations as before.

This treatment was followed by a temporary abatement of the fever, and the transitory disappearance of many of the above well marked indications of high inflammatory action in the bladder; but by the morning of the 12th all the general indications of a return of local inflammation made their appearance again, accompanied by nausea and vomiting, pain, fullness and tenderness in the left lumbar region, with scanty and high colored urine. All symptoms indicating that the inflammation had extended to the left kidney, requiring a continuation of active antiphlogistic treatment.

These indications were accordingly met by another full bleeding from the arm and with leeches applied to the left lumbar region, followed by anodynes, diluents, fomentations, &c., with the effect of moderating, again, all the symptoms of acute inflammatory action, and preventing their recurrence subsequently with anything like the same degree of intensity as before.

It was soon found, however, that all efforts to restore their healthy functions to the diseased organs would prove ineffectual, for on visiting my patient the next day I found him much prostrated, with the mental faculties torpid, a black incrustation upon the tongue and teeth, the abdomen tympanitic, no pain except that produced by pressure upon the loins, and a pulse tense and rapid, having frequent and copious discharges of dark bloody matter from the rectum, and an occasional slight evacuation of high colored urine mixed with blood from the bladder. To these symptoms, indicative of the purulent stage of inflammation and of the presence of urea in the blood, were soon added, oppressed



respiration and coma. Death followed on the 18th, ten days after the acute attack.

The following were the interesting results of our examination of the body. Upon opening the abdominal cavity and tracing the intestinal canal from above downwards, the mucous membrane of all those portions of the small and large intestines in the vicinity of the left lumbar region, and of the pelvic cavity presented all the appearances consequent upon recent acute inflammation, and in some parts, as the rectum and lower part of the colon, it had extended to all the layers, so as to produce thickening and adhesions of the peritoneum. In tracing the urethra from below upwards through the membranous and prostatic portions, no indications of previous disease, excepting a slight redness of the mucous membrane could be detected, but upon arriving at, and examining the bladder, it was found contracted to one fourth its natural size, and in a position to the left of the median line, with its right external surface in contact with, and adherent to a large fluctuatory tumor, which was found to occupy the whole space, beneath the peritoneum, between it and the walls of the pelvis upon the right side. Upon cutting through its walls, which were thick and muscular, the cavity was found to be small, and the mucous membrane lining it injected and softened. The opening for the ureter of the left side was easily found, but none could be discovered upon the right.

An opening was next made through the walls of the bladder into the tumor, which was found to consist of a large fibrous sack lined by mucous membrane, and filled with about a pint of a dark brown fluid.

Continuous with the walls of this sack, there was a canal, which upon being traced upwards, was found to terminate at the upper part of the right iliac region, in an encysted tumor, composed of indurated glandular structure upon the external side, and of fibrous lined with mucous membrane upon the internal, and of a cavity continuous with that of the canal and the large sack, filled also with the dark brown fluid.

This condition of parts had evidently resulted from an obstruction of long standing, to the passage of urine into the bladder.

Upon examining the kidney of the left side it was found distended, engorged with blood, and filled with numerous small abscesses. These were pathological changes which the symptoms, before death, had led us to anticipate.

The enlargement of this kidney, which was about five times the natural size, was, in part no doubt, due to its having performed for a long time, as was evident from the condition of the other, a double function.

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#### ARTICLE VII.

*Physical Condition of the Aborigines—with an account of their practice of medicine.* By EDWIN G. MEEK, M. D., of Choctaw Agency, West of Arkansas.

To one actually conversant with the details of Indian customs and modes of life, it is singular how vague and incorrect are the notions of even citizens of the United States concerning the aboriginal inhabitants of this country.

Much that has been said on this subject, is about as worthy belief, as the narratives of Captain Guliver and Baron Munchausen. By many who profess to be admirers of nature and primitive simplicity, the Red Man has been cited to prove the inutility of the medical and surgical theory and practice of the whites, and to prove that beyond the employment of a few simple vegetable remedies, the Science of Medicine is rather a curse than a blessing to the human family.

At this age of the world it is scarcely necessary to meet such absurdities with even a formal denial; but perhaps the actual state of disease and the healing art among this simple people, might be a source of gratification to some of the numerous readers of your magazine.

There is one difficulty connected with this subject: many of the tribes have held more or less intercourse with the



whites, and some of their medical notions have been thereby somewhat modified. The writer purposes in this article, to give such facts only as have come to his knowledge, during a residence of more than two years amongst the Choctaws, west of the Mississippi.

The country inhabited by this tribe, lies between about 34° and 35°40' N. latitude, and between 18° and 20° longitude west of Washington, having the Arkansas river on the North, and the Red River on the South; the larger portion of the tribe being located near the latter stream. The climate is as salubrious as any other in the same latitude elsewhere; the winters are mild though variable, and the summers are not usually oppressively hot. The principal diseases are Pneumonia, Pleuritis, Intermittent and Billious Remittent fever, Enteritis and occasionally Scrofula. Gonorrhœa and Syphilis are of occasional occurrence, though not so frequent as amongst the other tribes. There is no reason to believe that venereal diseases were known to any of the tribes, before they had intercourse with Europeans, nor that they are generally disposed to licentiousness; such diseases are known among them by the very appropriate designation of *Lu-ak* (fire).

The *Ah-lek-che* or Medicine Man is generally a pretty shrewd, cunning character, and sometimes manages to obtain considerable influence with a certain class, although there is a large number who treat his pretensions with contempt; indeed it may be safely affirmed, that a majority of the nation prefer to receive the attention of a white physician, when one can be obtained. These conjurors, have of course, no correct knowledge of Anatomy, Physiology, or Pathology; they ascribe all diseases to the malignant influences of wizards, witches and evil spirits, and occasionally point out an old man or woman to whom supernatural influence of this nature is attributed: of course these unfortunate beings are the objects of hatred, and so bitter is the animosity entertained against them, that the Council has enacted a statute, making it a penal offence, punishable by severe whipping, to accuse one of witchcraft.

When the doctor is called to his patient, he commences operations by excluding all white men, and all who disbelieve in the efficacy of his incantations: he then commences a prodigious shaking of a gourd containing some dry beans, peas, pebbles or something of that nature, accompanying the process with frantic howlings, and violent gesticulations, the object of which is to frighten away the evil spirit. Should there be violent local pain, as in Pleurisy, he sucks the affected part, and not unfrequently shows a piece of cane root, or something of the sort, which he professes to have extracted from the patient, and which he declares had been shot into the sufferer by a witch, thus causing the disease by which he was afflicted. In all acute affections the above is deemed the most efficacious mode of treatment; should it fail to produce the desired effect, the conjuror ingeniously excuses his want of success by averring that the witch or wizard who primarily induced the disease, is in the company, and by informal machinations reproduces the complaint as fast as he cures it. Keen and fiery are the glances that are then cast over the company by the friends of the patient—and wo to the toothless old man, or withered crone upon whom suspicion alights; in the excitement of the occasion, the infuriated company would not hesitate for a moment to take the life of any one whom their judgment convicted of the nefarious practice of witchcraft; fortunately for such, the statute before mentioned maintains a salutary restraint on the tongue of the conjuror. In addition to such means, they use as adjuvants a few simple vegetable remedies, vapor baths made from cedar twigs, decoction of *Eupatorium Perfoliatum*, and divers things of the like nature. I have not been able to learn whether or not venesection was a common therapeutic agent amongst them prior to their communication with the whites; it is a means of cure to which the common Indians are very partial, though the conjurors view it with jealousy, deeming it rather an innovation upon their practice.

As may be inferred, inflammatory diseases, and especially those of the lungs and pleural, are very fatal amongst them:



in fact these diseases are peculiarly terrible, especially when they prevail epidemically: during the last winter, Typhoid Pneumonia prevailed extensively and was attended with frightful mortality. Singular as it may seem, to residents of a higher latitude, I have no hesitation in ascribing the frequency of pulmonary affections, in good part, to the mildness of the winter: there is seldom more than four or five days in succession of very cold weather, and the consequence is that the inhabitants do not take the precaution to protect themselves sufficiently against the vicissitudes of the season. There are however, other causes to be taken into the account; not unfrequently the thermometer will indicate a variation of twenty degrees in two or three hours; in fact we have often a specimen of the four seasons in the course of twenty four hours; to these great and sudden changes they take but little care to adapt their clothing, and the result is what might be reasonably anticipated. Another cause which may be mentioned as a prolific source of these affections, is the great exposure to which the Indians subject themselves, especially during a drunken frolic, when they will sometimes lie the entire night exposed to a rain or snow storm with no other clothing than a shirt and leggins. There is no doubt that acute inflammatory affections are more amenable to proper treatment, amongst the Indians than amongst the Whites; the former seem to bear depletion much better than the latter: the effect seems to follow more quickly the use of the remedy, and the impression is more decided and permanent. This may be owing to the fact that their habits of life are more natural and simple than ours: whatever may be the cause, there is no doubt of the fact. I regard it as well settled that a timely use of the lancet and Tartar Emetic will amongst them cure Sthenic Pneumonia, as that Quinine will check an Intermittent. Their fevers are generally easily managed, and are less fatal than the same diseases are amongst us: in fact it is rarely that they die with an idiopathic fever. The great difficulty a physician has to encounter, is the want of judicious nursing and proper diet:

being in this, as in other things, practical fatalists, they regard an attack of disease inevitable, and treat it with indifference.

In chronic complaints, the native physicians are of course even less successful than in acute diseases. Here the resources of their *Materia Medica* are totally inadequate to the expulsion of the evil spirit, or the counteraction of the wizard's spell. There is no authentic account that they ever had any knowledge of an oxide, or any form of metallic remedies, and the grand arsenal of weapons which Chemistry has furnished the scientific physician, has never been opened to the use of the Red Man. In the treatment of Scrofula, Consumption, or any diseases that require skill in the selection, or judgment in the application of remedies, the Indian Doctor is totally in the dark, and unless the white man can relieve his sufferings, the poor invalid lingers on, looking hopefully to death as the termination of his sorrows.

Their Surgery like their Medicine, is very rude and unskilful. It has been asserted that they have remarkable success in the treatment of gunshot wounds, cuts and stabs; and so general is the belief, that the War Department in a set of queries propounded to those supposed to be familiar with Indian affairs, assumes the fact as established, and requests to know whether it is the "result of the particular mode of treatment, or the assiduity and care of the physicians." Now, so far as my observation and experience go, there is no reason to believe that they possess any remarkable skill, or that their success is such as it has been sometimes represented to be. I have attended many who were badly wounded in their numerous drunken affrays, and have noticed many unseemly cicatrices, the results of former wounds, and such as any surgeon of reasonable pretensions would be ashamed to show as the consequences of his treatment of incised wounds. The native surgeons are totally unskilled in the use of stitches, sutures and adhesive plasters, so that a severe wound has no opportunity of healing by the first intention; neither have they the necessary



art of properly applying a roller, that *sine qua non* of a surgeon's apparatus. In fact their treatment of such wounds amounts to nothing, or sometimes worse; and the success attributed to them belongs properly to nature alone. It is somewhat singular that although they use in their fights, unsatisfactory looking butcher's knives, they rarely kill each other. If two white men were to fight with such weapons, the great probability is that one or both would be killed, but the Indian uses his knife to slash and hack, not usually aiming to stab. But one instance of a fatal injury being inflicted in this way has ever come to my notice: in that instance the knife had penetrated the lung. I did not see the patient until the third day after the wound was inflicted, and suppuration and effusion had then commenced: had proper treatment been instituted sufficiently early, the chances were that the man would have recovered. They do not often sever important arteries, and so little are they acquainted with anatomy, that such wounds are peculiarly dangerous, when the assistance of a competent surgeon cannot be secured. To the fact that their wounds are not generally dangerous, is to be, in great part, imputed their skilful treatment. When a really dangerous wound is received, the result is usually fatal, unless better means of cure can be obtained than the Indian possesses. The same remark may be made in reference to gunshot wounds: their instruments for the extraction of a ball are rude and clumsy, and if the ball be difficult to come at, they fail to extract it. Their treatment of contusions, sprains, luxations and fractures, is more skilful than any other part of their surgical performances. Luxations and fractures frequently occur at their ball plays, (which are sports of the most violent character) and are generally reduced on the spot, and so well that deformity rarely, if ever, results; but the contrivances they use are clumsy and ill-formed. I have never known of their performing amputation in any case; and do not suppose they have the necessary knowledge and skill in the management of severed arteries, to say nothing of proper knives, tourniquets, adhesive plasters, lints and bandages.

With regard to surgical diseases, their treatment is as well adapted to produce a cure, as that used for the inflammatory affections before mentioned. Ulcers are very frequently met with and are peculiarly obstinate: they result from the same causes that produce them elsewhere, filthiness, sequela of fever, insufficient or innutritious diet, improperly treated wounds, or a generally cachectic condition of the system. The natives regard them as incurable; but a proper application of bandages and lotions will often produce a favorable result. Carbuncles, biles, abscesses, and other external inflammations, are generally allowed to run their course without interruption.

There are here various noxious reptiles and insects whose bite is poisonous; the large and the ground Rattlesnake, the Moccason and the Cotton-mouth snakes, the Scorpion, Centipede and Tarantula. The bite of none of these is usually fatal, nor do I know that the natives possess any remedies that may be regarded as specifics in such cases. There is reason to believe that the noxious qualities of these *varmints* have been somewhat overrated, although they are in sober verity, dangerous looking things, especially the Tarantula, concerning which the same notion exists that is recorded in Tweedie's Library, that its bite is curable by lively music. I once proposed to try the effect of this agent upon an Indian, but he very emphatically declined the risk; preferring a whole skin to a poisoned wound, with nothing but "Yankee Doodle," or "Old Dan Tucker" for Medicine. *Aqua Ammonia* would generally be efficacious in such cases, but like the before mentioned individual, I have never had sufficient curiosity to induce me to try the experiment upon myself.

Concerning Obstetrics amongst them, there is not much to be said. As a general thing, child-birth is not characterized by much risk or suffering: accidents and protracted labors are very rare. The treatment of the latter is rude and barbarous to the last degree: the attendants resort to kneading the abdomen with the fists, and this failing, they get on the patient with their knees and use great violence.



This branch of the profession is left entirely to women, and the cases are very rare in which a physician is resorted to. They use different postures in delivery, perhaps the sitting posture is as common as any other. It is perhaps not necessary to state the reasons why labors are so easy amongst them: every physician is familiar with the general influence of civilization upon the female constitution: I will, however, venture to suggest the general indifference to pain, and the stoicism of the Indians are partly attributable to a less delicately organized nervous system than the white races possess. Female diseases are not so common amongst them, as with the whites; and owing to their diffidence in such matters, they do not often consult a physician in such cases.

The treatment of children is not such as is generally said to prevail amongst the Aborigines: the children are not bound to a board, but dressed after the custom of the whites. They do not receive proper care and attention, and the mortality amongst them is very great. Emigration and change of residence also prove very injurious to children. A great proportion of the deaths amongst those who have migrated from the East bank of the Mississippi, to their new homes in the West, has been amongst the children: next to these the aged suffered most.

Comparisons have been often instituted between the white and red races, with reference to their comparative longevity, capacity for sustaining fatigue, muscular strength, &c.: and here again the white skin has usually the advantage. The Indians very rarely attain a great age; even those who possess originally good constitutions, and live peaceful, quiet lives. It would seem to be a law of nature, that the mental, equally with the bodily organization, needs a due degree of exercise, and this law the Indian habitually transgresses. Their mental faculties are employed only at irregular intervals, and then the feelings more than the intellect: there is not that steady, equable excitement which civilization affords to our race. The Indian's intellect becomes torpid, and there can be no doubt that his indolence shortens his days. The average duration of a generation with them is less than with us: from the best data I have

been able to obtain, the average length of their term of life does not exceed seventeen years at the farthest. In the year 1837, a party of five hundred Choctaws volunteered to go to Florida to fight the Seminoles: they were not however mustered into service: these men were either young or in the prime of life; and in looking over their muster roll, it is ascertained that more than half of them are now dead. When we add that there is a smaller proportion of births amongst them than with us, we cannot wonder that they are fast fading away from the earth, and that before long they will be reckoned among the nations that have gone forever. A melancholy chapter might be written on the agency of civilization in producing this state of affairs, but this is not the place for such a discussion.

Their muscular strength and capacity of bodily endurance, like many other things with them, are matters of impulse; but when it comes to steady endurance for a length of time they are found wanting. It would be unreasonable to suppose, that with their habits of life, they would be equal in this particular to a laboring white man. They will sustain for a short time the most violent efforts, in the chase or at a ball play, for which they compensate by days of indolence and inactivity. So the wild tribes of the prairies will exist for days upon parched corn, and at the end of their fast will devour ten pounds of meat in a day: this may startle some of your readers, but the records of the War Office will tell you it is no exaggeration.

It has been said that an Indian never commits suicide: this is a mistake: I have known instances of it amongst the Choctaws, and once at least where no cause was known for it. If insanity occurs amongst them, I have never seen or heard of it.

I have thus in a desultory form thrown together such matters as came first concerning the physical condition of this interesting people: if your readers be thereby gratified, the writer will be amply repaid; if not, he will have the satisfaction of knowing that he is not the first who has turned blank paper to profitless uses.

September, 1847.



## PART II.—REVIEWS.

## ARTICLE VIII.

*A Practical Treatise on Inflammation, Ulceration and Induration of the Neck of the Uterus—with Remarks on the value of Leucorrhœa and Prolapsus Uteri, as symptoms of uterine disease.* By JAMES HENRY BENNETT, M. D., Licentiate of the Royal College of Physicians, etc., etc. Philadelphia: Lea & Blanchard. 1847. pp. 146.

We have already had occasion to express our favorable opinion of the value of this work, and announced a determination to return to the subject and present our readers with such copious extracts as would not only enable our readers to form an estimate of its merits, but aid them in the treatment of those forms of uterine disease which fall to the lot of every practitioner. In pursuance of this plan, we now proceed to extract some of the most important parts, hoping thereby to induce physicians to possess themselves of the book itself, than which a more useful little volume could scarcely be added to their libraries.

The healthy state of the cervix is thus described at the opening of the first chapter.

“In the healthy condition, the cervix uteri is perfectly soft and smooth. On being pressed by the finger, no hardness or resistance, indicating condensation of tissue, is felt. There is at the same time a certain degree of elasticity about it, the varying degree of which indicates general or local congestion, or atony of the uterine system—states which, however, as Dr. Ashwell justly remarks, can only be appreciated by long habit. In the healthy condition, the surface of the neck of the uterus is generally unctuous to the touch. The layer of mucus by which it is then covered accounts for this very characteristic sensation. There is also complete absence of pain on pressure. In examining the cervix by the toucher, it is advisable to appreciate carefully the state of the entrance to its cavity, as slight local induration existing on or within the margin of the lips might otherwise escape notice. The pulp of the finger

should be brought successively to bear on each part of the surface of the organ, above, below, and on each side, which may be easily accomplished. Not only does this mode of examination contribute to render our sensations of density and smoothness more perfect, but it also enables us to judge of the size and freedom from adhesions of the body of the uterus itself. In the unimpregnated state, and when not morbidly enlarged, the body of the uterus moves readily on pressure being made on the neck; pressure thus applied, acting as on one extremity of a lever—that is, raising the other in the opposite direction. If these facts respecting the healthy uterine neck are borne in mind, the detection of disease becomes comparatively easy.”

Proceeding to the symptoms of the disease, he says—

“**SYMPTOMS.**—When inflammation attacks the cervix uteri in women who have not conceived, it is nearly always confined to the mucous membrane, the deeper structures seldom becoming implicated, except in cases of general metritis. The inflammation may co-exist with general vaginitis, as is usually the case in gonorrhœa; it may be confined to the uterine neck, and to that part of the vaginal cavity which is in contact with it—viz., the superior fourth or fifth; or it may be limited to the orifice of the os uteri. The leucorrhœal discharge may be a prominent symptom, or it may be absent, or nearly so; which is the case when the inflammation is very limited, the mucoso-purulent secretion being then but slight, and lost in the vagina. This generally occurs when the inflammation is the result of sexual communication. There are, however, other symptoms present to guide us in our diagnosis. The patient complains of pain in the loins, and sometimes, of deeply-situated pain in the hypogastric region, behind the pubis, and, a most important symptom, intercourse is painful. This fact alone may lead us to suspect the existence of disease. Sometimes there is a vivid perception of heat at the superior portion of the vagina. There is no sensation of weight, heaviness, or bearing down, except in extreme cases, in which the malady has been long neglected.

*Toucher.*—On examining by the toucher, the neck of the uterus is found hotter than the lower part of the vagina; it has lost its unctuous, greasy feel; its volume is more or less increased, as also its elasticity, owing to its being more or less congested. Still there is no general or deep-seated induration of its tissue. The surface, likewise, is smooth



and unresisting, unless ulceration has set in. When this is the case, it is at the orifice of the uterine cavity that the ulceration commonly begins, and from that region that it spreads; owing, no doubt, to the great tenuity and delicacy of the mucous membrane. Pathologists generally state that the ulceration may be recognized, by its producing the sensation that a velvety surface would offer when the finger is passed lightly over it. Finding, however, that this peculiar sensation is so difficult to appreciate in this form of the disease, that those who rely upon it alone must be as often wrong as right, I have endeavored to discover a more correct guide, and have ascertained that ulceration of the mucous surface, however limited, almost invariably gives rise to slight induration of the tissue underneath, which induration is very perceptible to the touch. In the form of ulceration that we are now examining, the induration to which I allude is quite superficial, not extending to the central tissue of the uterine neck. It is merely a thickening of the ulcerated mucous membrane, and of the sub-cellular tissue, most perceptible at the circumference of the ulceration; yet it is easily appreciated by the finger of one who is accustomed to look for it, and to him it is a valuable symptom. This superficial induration is generally felt most distinctly at the edge of the uterine lips, where the mucous membrane passes into the cavity of the neck, and where, consequently, two mucous thicknesses are approximated by the folding of the membrane. Although I have found this symptom of great assistance in the diagnosis of ulcerations, I must confess, nevertheless, that it is not infallible. In the very first stage of ulceration, induration may not yet exist, whilst, on the other hand, the ulceration may heal, and the superficial induration remain for a few days. When the inflammatory induration extends to the entire substance of the cervix, as it generally does if the ulceration exists in women who have had children, the superficial induration is necessarily lost in the general hardness. Pressure on the inflamed and ulcerated cervix will often, not always, occasion slight pain, which is never the case in the healthy state.

“There being, thus, great difficulty in arriving at a satisfactory diagnosis by means of the toucher alone, it is generally necessary to resort to the speculum, in order to ascertain correctly the true state of things, its use being calculated to remove all doubts as to the state of the parts. This remark applies not only to those who are unaccustomed to the treatment of uretine diseases, but even to those whose touch has been fully educated.

“*Speculum*.—On examination by the speculum, a certain quantity of mucoso-purulent matter is always found at the superior region of the vagina, even when the lining membrane of that organ is not inflamed; the cervix uteri is generally increased in size, but seldom so much so as not to be admitted into the cavity of an ordinary sized conical speculum, the one I generally use, and by far the most convenient and the least painful to the patient. The tumefaction is mostly greatest on the upper lip, which is the larger one of the two in the healthy condition; it is therefore often necessary, in order to expose the orifice of the os, to raise the speculum towards the pubis, and by thus slightly pressing with the superior edge of the instrument on the anterior lip, to push it back, and allow the inferior one to enter its cavity. Even if the cervix uteri is too large to be admitted at once into the speculum, by thus alternately depressing its different parts, the entire organ may successively be brought fairly into view. When inflamed, the tumefied cervix presents a more or less intense red, glistening hue, instead of the pale, dull, whitish colour, which is natural to it. On its surface may frequently be seen small white or red vesicular, or papular, elevations, the result of distention of the mucous follicles, or of their hypertrophy. Different forms of inflammation have been admitted by some writers, founded on this appearance, but without any practical utility whatever. When the mucous membrane is ulcerated, the glossy appearance of the membranous surface is lost, and a number of vascular granulations, of a vivid red hue, are seen covering the ulcerated region, after the mucus has been wiped away with a pledget of lint—a necessary precaution. Sometimes the ulcerated surface appears raised above the adjacent level, whilst occasionally, on the contrary, it appears depressed. When the ulceration is at the entrance of the os uteri it is often difficult to discover, unless the uterine lips be slightly separated. There is generally a mass of semi-transparent mucus occupying the cavity of the os uteri. The ulceration may be so superficial and slight as to be scarcely perceptible, or extend over a considerable portion of the cervix. In many cases, the pressure of the edge of the speculum, or even of the pledget with which the mucus is wiped off, occasions a slight oozing of blood from the abraded or ulcerated surface. This also frequently occurs when patients thus affected expose themselves to intercourse—a fact of which they themselves are often cognizant. Menstruation is generally more painful than in the healthy state, owing to the temporary congestion



of the uterus increasing the inflammatory irritation of the cervix. Indeed, the occurrence of the various symptoms of painful and difficult menstruation, when coupled with a leucorrhœal discharge, may be considered, in most cases, as pathognomonic of the inflammation and ulceration of the cervix. Occasionally, slight irritation of the urinary organs is present, giving rise to frequent desire to urinate. The annoyance and distress of mind which the local symptoms sometimes produce, coupled with the leucorrhœal discharge, when it is abundant, may react more or less on the general health, and give rise to dispepsia, palpitation, general weakness, &c.

“Such are the symptoms which ulceration of the cervix and os uteri usually occasion in the unimpregnated female. The inflammation, ulceration, and induration, are nearly always superficial—limited to the mucous membrane. The cervix becomes tumified, congested, but remains soft and spongy. There is scarcely ever the deep-seated, solid engorgement of the cervix, which is so often met with as the result of the same lesions in females who have borne children, and which is occasioned by inflammation and effusion of lymph in the central tissues of the neck, giving rise to the peculiarly distressing bearing-down pains experienced by persons thus afflicted. The reason is evident. Although subject to the periodical menstrual congestion, the uterus is, until impregnated, in a dormant state, as it were. Its mucous membrane is a mere film, and its proper tissue, which we have followed into the neck, is in an elementary fibro-muscular state, very sparingly supplied with blood, and possessing a very subdued vitality. It is owing to these anatomical and physiological circumstances, in my opinion, that the inflammations and ulcerations of the cervix uteri *seldom* assume the more serious form which I shall have to describe as that which is frequently met with in women who have borne children. I shall conclude the above brief account of this species of uterine inflammation, by the narration of two cases, selected from many, which will admirably illustrate the facts that I have above stated.”

We add one of the cases given in illustration.

*“Disease rather severe.—Cause, marriage.—Cure perfect.”*

“At the beginning of 1844, a gentleman, who had been married about four months, requested me to see his lady, who had, he stated, been suffering for some time. The lady, four-and-twenty years of age, was apparently in the

enjoyment of robust health, the various functions being all accomplished with great regularity. On inquiring minutely, however, into her state, I found that she had experienced pains in the loins nearly ever since her marriage ; that these pains had gradually increased, had lately been accompanied by slight pain behind the pelvis, and by a deep-seated sensation of heat in the same region ; that intercourse, at first unattended by pain, had, a few weeks after marriage, become painful, and was then unbearable, from the last mentioned cause. There was no perceptible leucorrhœal discharge. Being convinced that inflammation and ulceration of the uterine neck were the cause of these symptoms, I obtained the consent of the parties to an examination.

“On practising the toucher, I found increased heat in the superior region of the vagina, and a large tumefied, but soft and pulpy, cervix uteri. The anterior lip was evidently much more tumefied than the posterior ; on its margin, I distinctly felt a superficial induration of several lines in length, presenting a rather uneven surface. The speculum having been introduced, I found the mucous membrane of the lower two-fourths of the vagini perfectly healthy, but the superior fourth was red, inflamed, and partly covered with a mucoso-purulent secretion, especially where in contact with the inflamed cervix. The latter was of an uniform red color. The upper lip was so much congested and swollen, as to occupy nearly all the concavity of the speculum, and to cover the orifice of the uterine cavity, and the under lip. On its being pushed back so as to expose the latter parts, a circular ulceration, about the size of a shilling, was discovered around the os, but more especially extending on the anterior lip. The pressure of the speculum was found rather painful. A slight oozing of blood took place on the copious mucoso-purulent secretion, which covered the ulcerated surface, being wiped away. When this had been done, the mucus passing from the interior to the cavity of the neck was found quite transparent, a proof that the internal surface of the uterine cavity was not inflamed. The entire surface of the cervix, and upper part of the vagina, was painted over with the solid nitrate of silver, which was passed two or three times over the ulcerated region, and into the cavity of the os for a couple of lines. The application of the caustic was scarcely attended with any pain. The patient was then told to use cold water vaginal injections several times a day, for two days, and after that period, injections with the sulphate of zinc. She was also requested to remain quietly at home, on an easy



chair, or a sofa, and, as a matter of course, forbidden any communication with her husband.

"A couple of days after the cauterization, the pains in the loins and pelvis had much abated, as also the other symptoms above mentioned.

"On the eighth day, the cauterization was repeated, the tumefaction of the cervix had much diminished; as also the inflammatory congestion. The ulcerated surface was decidedly smaller. The same local treatment was pursued. On the sixteenth day, nearly all pain in the loins had disappeared; the cervix uteri was evidently rapidly regaining its natural size, and the ulceration had still further diminished. She was allowed to ride out in a carriage, and even to walk with moderation.

"Cauterization with the nitrate of silver was again resorted to on the twenty-first and twenty-fifth day, but much more slightly, and on the thirty-second day she was quite cured. The ulceration, had cicatrized without leaving the slightest induration behind it. The tumefaction of the uterine neck had disappeared, and it had regained its usual coloration and unctuous feel to the touch. I need scarcely say that not a vestige of the symptoms experienced during the preceding months remained. I gave her no medicine internally during the treatment, because she did not require any, and did not even think it necessary to modify her usual diet, which was simple."

Chap. II. is devoted to the consideration of the disease in those who are pregnant, or who have borne children; the changes induced by this state being thus set down, as follows:

*"Physiological and Anatomical considerations.—Causes, symptoms, progress.—Illustrative cases.*

"In the previous chapter, I have examined the causes and symptoms of the inflammation of the uterine neck in females who have never borne children. I have stated that in them the cervix uteri, as well as the uterus itself, may be considered in a dormant state. We will now proceed to the study of inflammation, ulceration, and induration of the cervix uteri in women who are pregnant, or have borne children, by far the most important part of the task which I have undertaken.

"As soon as conception has taken place, a new life, as it were, dawns on the uterus and its appendages. Instead of

remaining in a quiescent condition, merely disturbed at periodical intervals by the menstrual congestion, the uterus assumes a high degree of vitality, becomes the seat of a most active nutrition, and rapidly increases in size. The hard fibro-muscular tissue of which it is formed undergoes, apparently, a complete transformation, and assumes the decided characteristics of muscular structure; the arteries and veins, previously so small as to be followed with difficulty, are developed to an enormous extent, and the entire organ becomes one of the most instead of one of the least vascular in the human economy. The cervix uteri participates in the change; it becomes turgid; it swells, softens, and its entire structure is modified by the exaggerated organic activity which pervades the uterine system. This nutritive activity gradually increases, until at last labour takes place, and the foetus is expelled. The uterus then contracts on itself, and partially regains its former state; I say, partially, for it is well known that, as long as menstruation persists, the uterus of a woman who has conceived never returns entirely to the size which it presented previous to conception. It is larger, rather more muscular, and endowed with greater vitality; consequently, it is more liable to disease, and especially to inflammation. In confirmation of this fact I may mention a circumstance which I have repeatedly observed—viz., that in metritis unconnected with pregnancy, which is nearly always caused by the sudden suppression of the menstrual flux, the body of the uterus enlarges very much more in women who have borne children than in those who have not. In the latter, also, sudden suppression of menstruation gives rise very frequently to ovaritis, instead of metritis, which is very seldom the case with the former—an additional proof of the greater susceptibility to uterine inflammation of women who have borne children.

“ This remark applies even more to the cervix uteri than to the body of that organ, as the cervix is naturally rather more vascular, possesses a little cellular tissue, which the uterus itself does not, and is covered with a mucous membrane, much thicker and much better organized than the one which lines the uterine cavity. This being the case, it stands to reason that inflammation of the cervix uteri will extend much more frequently throughout its entire substance, and present much greater gravity, in females in whom the uterus is thus modified, than it does in those in whom the uterus has not undergone any change. In the following remarks I shall endeavour to show that such is really the re-



sult produced by the structural modifications which follow conception. I shall begin by examining the causes which give rise to this form of the disease.

“CAUSES.—Out of twenty cases of non-venereal inflammation and ulceration of the cervix which we meet with in practice, seventeen may be directly traced to abortion or to labour, two will recognise other causes, and occur in women who have borne children, whilst one only will be found in females who have never conceived. I do not give this statement as the result of statistical researches, but as the impression left on my mind by the examination of a very large number of cases.

“When the disease is not the result of abortion or of labour, but occurs in women who have borne children, it may depend on the same causes as in women who have never conceived—causes which we have already enumerated, (sexual irritation, vaginitis, aphthæ, &c. ;) or it may be the result of the localization, under a chronic form, of general metritis in the central tissues of the neck. When this takes place, the induration and hypertrophy are primary, and the ulceration secondary; the friction of the indurated cervix against the superior region of the vagina occasioning and keeping up a degree of irritation of the mucous membrane which often terminates in ulceration. This cause of ulceration of the cervix is, I believe, very rare in females who have never conceived, the central tissues of the uterine neck being in them partly protected against inflammation by the peculiar condition of its hard fibro-muscular structure.

“When inflammation and ulceration are the result of abortion or labour, they may recognize the same origin—general metritis, occasioned by the abortion or labour, localizing itself, under a chronic form, in the cervix, and giving rise, firstly, to hypertrophy, and subsequently, to ulceration. Indeed, many of the Paris physicians and surgeons appear to think that such is nearly always the case; that ulceration is, in most instances, the *result*, and not the *cause*, of general induration and hypertrophy of the cervix. With this opinion I cannot agree. I admit that some ulcerations are generated as above described; but I believe that they are the exceptions, and that, in the great majority of cases, the hypertrophy and general induration (engorgement) are caused and perpetuated by the presence of the superficial ulceration. This conviction is founded on my having generally perceived, in recent cases, that the extent and degree of the engorgement coincided with the extent and degree of the ulceration, and on my having been able repeatedly to follow

the gradual increase of the inflammatory induration of the cervix coinciding exactly with that of the ulceration. On the other hand, in the cases in which the inflammation and ulceration of the mucus surface have caused the general induration, if the latter persists, it becomes an important cause of disease, continually reproducing the ulceration, unless means be taken to cure it, as well as the ulcerated surface.

“Even among those who recognize, like myself, the *ordinary* pre-existence of inflammation and ulceration of the surface of the cervix to general inflammatory induration of its body, erroneous views, I believe, exist. Thus, in a memoir published a few years ago in the ‘Archives,’ by M. Gosselin, a clever French surgeon, it is stated, without exclusive reference to the sequelæ of labour, that ulcerations of the uterine neck are almost invariably occasioned by internal metritis, or inflammation of the lining membrane of the uterine cavity, and that this form of inflammation nearly always accompanies and keeps up the ulceration. I am quite prepared to acknowledge that internal metritis, especially after labour, is an important cause of inflammation and ulceration of the cervix, as I shall presently explain, but I certainly cannot admit that it is nearly always the sole cause of the lesion, or that it generally coincides with it in its after stages. M. Gosselin founds his opinion principally on the mucoso-purulent character of the discharge issuing from the os uteri, and on the slight hypogastric pains which usually exist in such cases. These data are not however, in my opinion, sufficient to authorize his views. When ulceration of the cervix exists, its general seat is around the uteri, and it very often passes more or less into the cavity of the os. Now, when we consider that the cavity of the uterine neck extends some distance before it reaches that of the body of the uterus, it must be allowed that the presence of a little muco-pus between its lips is not a sufficient proof of an inflammatory secretion taking place in the interior of the uterus. If, however, a wide, thick stream of muco-pus issues deeply from between the lips, it probably originates in the uterine cavity, and the membrane which lines it is most likely inflamed. I have, however, not very often found, in ulceration of the cervix, that this is the case; and when I have, the hypogastric pains have always been much more severe than those which accompany even severe ulceration. I have generally, also, observed, in these latter cases, more or less febrile re-action. I myself believe that we may explain by other considerations the undeniable fact of abor-



tion and labour giving rise to the great majority of the cases of ulceration and general hypertrophy of the cervix which we meet with in practice."

"SYMPTOMS AND PROGRESS.—The *first* symptoms of inflammation and induration of the uterine neck in women who *have* borne children are the same as in those who have not, but in the former they very soon acquire an intensity which they seldom present in the latter. Moreover, in women who have borne children, owing to the greater vitality of the uterine tissue, as I have already explained, the inflammation readily extends to the central structure of the cervix, and gives rise to *inflammatory induration of the entire organ*, which induration is accompanied by a new train of symptoms. Thus it will be seen that the form of the inflammation and ulceration which is observed in women who have never conceived—is, in reality, merely the first stage of the disease, and it is found in females in whom the uterine structure has undergone the change which accompanies and follows impregnation. It would, indeed, be scarcely worth while to establish any distinction between what, in reality, are merely different stages of the same disease, were it not that such a distinction has a decided practical advantage. It impresses forcibly on the memory that, in one class of females, the incipient symptoms of the disease only are to be expected, and thus draws the attention to data which otherwise, in that case, would not, most likely, be deemed sufficiently important to demand investigation. It also enables us to understand at once how it is that in some cases very simple therapeutic means are nearly always successful; whereas in others these same means frequently fail to effect a cure, the disease requiring more energetic treatment.

"I need not, therefore, lay much stress on the symptoms which indicate *incipient* inflammation of the uterine neck, in women who have conceived, as I have already described them. They are slight lumbar and hypogastric pains, with or without leucorrhœal discharge. On examination by the toucher, heat of the upper part of the vagina, fulness, congestion of the cervix, absence of the unctuous sensation which the healthy cervix presents; when ulceration exists, a soft, velvety surface, resting on a very superficial induration. On examination with the speculum, redness of the cervix, which is more or less tumefied; the redness being uniform, or presenting red papulæ, or white pustulæ, constituted by mucous glands, hypertrophied, or distended with

mucopus. If ulceration exists, the ulceration is nearly always situated round the os uteri, and may present merely a scarcely perceptible abrasion, or a large ulcerated surface covered with numerous florid granulations: the ulceration is covered with mucopus, and bleeds very readily.

“The induration which accompanies ulceration of the cervix does not, however, long remain confined to the surface in women who have borne children. The inflammation gradually extending to the deeper structures, a great portion, or the whole cervix, becomes more or less actively hypertrophied and indurated. That this inflammatory induration is only, in the great majority of cases, the result of the extension of the ulcerative inflammation, is, in my opinion, an undeniable fact. I have repeatedly been able to follow instances—such as that of Octavie, (case 3)—in which a slight ulceration was at first the only lesion, and in which the general induration subsequently made its appearance, gradually becoming more and more marked as the ulceration increased in extent. I have also repeatedly seen an ulceration confined to one lip, accompanied by engorgement of that lip only. Indeed, there is generally, in recent cases, a very evident conformity between the degree of the general induration and the extent and virulence of the ulceration. We must also take into consideration another very important circumstance—viz., the time that has occurred since the last abortion or labour. The nearer a female is to the epoch at which she was last delivered or miscarried, when attacked with inflammation and ulceration of the cervix, the greater will be the central engorgement produced by the ulceration. This hypertrophy and induration is generally confined to the cervix, but sometimes it passes on to the body of the uterus, then, obviously, likewise the seat of inflammation. At first, the central induration is evidently of an active inflammatory nature, as indicated by the increased heat of the organ, the vivid redness, and slight pain on pressure. If, however, it is not subdued in the course of time, these symptoms of inflammatory engorgement partially subside, and the organ becomes the seat of mere chronic hypertrophy, the inflammatory character of which is scarcely recognizable. The size of the engorged cervix varies from that of a walnut to that of an egg.

“The uterus is so slightly poised or suspended in the cavity of the pelvis, that the slightest modification in its volume gives rise to a change in its position. The inflammatory hypertrophy of the cervix increasing considerably the specific gravity of the inferior portion of the uterus, the



entire organ descends, prolapses. The cervix is thus brought much nearer to the vulva: at the same time it frequently falls backwards, and presses on the posterior parietes of the vagina, whilst the body of the uterus is carried more or less forward. This latter change of position, which constitutes anteversion of the uterus, or retroversion of the neck, is not, however, so common as partial prolapsus. Whenever there is much engorgement of the cervix there is always more or less prolapsus if the patient is standing; the degree to which it is carried depending on the extent of the hypertrophy and on the state of the vagina. If the vagina has retained its tone and its contractility, it will support the uterus; but if, on the contrary, it is lax, and offers no support to the engorged cervix, as is sometimes the case in women who have had many children, the latter may fall as far as the orifice of the vulva. This abnormal laxity of the vagina may be occasioned by the disease itself; the distension of the superior portion of the vagina by the hypertrophied cervix diminishing its tonicity. The engorged cervix then falls, as it were, into a non-contractile pouch.

“The direction of the healthy cervix varies considerably, even in females who have never suffered from uterine disease. In most it is directed to the vulva, whereas in others it is turned backwards, and points to the anus. This latter direction of the cervix is stated, by M. Lisfranc, to be one of the results of marriage. It is easy to be understood, that in females with whom the cervix is naturally long, marriage should produce this effect. Whether the backward direction of the cervix be natural or acquired, it is certain that it constitutes a predisposition to anteversion of the uterus or retroversion of the cervix, should the latter subsequently become the seat of general induration.

“The condition of the patient is considerably modified by engorgement of the cervix, and the gravity of the disease much increased. The sensation of weight and heaviness in the hypogastric region, scarcely perceptible as long as the cervix is merely congested, becomes very marked and distressing, especially in walking and standing. Indeed, if the inflammatory hypertrophy is considerable, the patients not unfrequently complain that whenever they are on their legs they feel as if the womb were on the point of falling out of the pelvis. The deep-seated hypogastric pain is increased, and sometimes pressure above the pubes is slightly painful. The pain in the loins and in the lumbar region is generally continued, and most distressing. Severe pains are also often experienced in the thighs, along the course of the sci-

atic, obturator, and crural nerves. These pains are no doubt, in a great measure, to be attributed to pressure, and to the traction exercised by the engorged and prolapsed cervix on the nerves supplied to the uterus by the lumbo-sacral plexus. They are much more severe when the cervix is ulcerated and engorged, than when it is merely ulcerated. When there is retroversion of the neck, the hypertrophied cervix pressing on the rectum renders evacuation of the fæces difficult and painful. The body of the organ being also thrown forward, may irritate the bladder, and occasion frequent desire to urinate. The presence of the ulcerated and indurated cervix in the cavity of the vagina secreting an abundant muco-purulent fluid, which partly stagnates in that organ, is inevitably followed by the inflammation of its mucous membrane, and by general vaginitis, which increases the amount of the leucorrhœal discharge.

“When a patient is in this state, often long before, the general health begins to fail. Racked with pain, suffering from an abundant leucorrhœal discharge, it is impossible that the economy should not suffer. In nearly all cases, the appetite flags, the tongues become loaded, the bowels irregular, and in the more severe ones, the patient loses flesh and strength, suffers from continued headach, from want of sleep, and becomes dyspeptic, hysterical, hypochondriacal. As the disease gains ground, when proper measures are not adopted to arrest its progress, all these symptoms increase in intensity; the patient is nearly unable to leave her bed, and the skin assumes the yellow cadaverous hue, which is occasionally seen in severe chronic inflammatory disease of the uterine organs, and which may be mistaken, and no doubt occasionally is, for a symptom of cancerous cachexia. In these severe cases, the inflammation and induration are seldom, if ever, confined to the cervix uteri. They extend more or less to the body of the uterus, giving rise to a sub-acute form of metritis, indicated by the increased size of the organ, and by the increased severity of the uterine pains. There is also, generally speaking, more or less febrile reaction, especially in the latter part of the day.

“Whenever there is even superficial inflammation of the cervix uteri, menstruation is modified by its existence. Indeed, in slight cases, the modification may often materially assist the diagnosis. The monthly congestion of the uterus generally appears to exacerbate the local inflammation, which, on its side, renders the due performance of the menstrual excretion difficult, probably by abnormally increasing the uterine congestion; thence intense uterine pains, in-



creased pain in the loins, and not unfrequently hysterical symptoms. This exacerbation often begins two or three days before the appearance of the menstrea, and lasts for one, two, or more days afterwards. Generally speaking, the ordinary duration of the menstruation is curtailed, and the amount of the excretion diminished; but it is not always so, for sometimes, more especially in severe cases, flooding will occur at each menstrual epoch, lasting many days. There is but little doubt that the monthly congestion instead of favoring the resolution of uterine inflammation, as some authors have pretended, is one of the chief causes of its being difficult to overcome.

“*Toucher*.—In this form of inflammation and ulceration of the uterine neck, the toucher is a much more valuable means of diagnosis than in the former, or, at least, gives much more certain data. The finger very soon reaches the prolapsed cervix, which is only one, two, or three inches from the vulva, especially if the woman is standing, instead of four or five, as is naturally the case. The vagina is moistened by an abundant leucorrhœal secretion, and is often hotter than usual. The increased size of the cervix is at once recognized, as also its resistance to pressure and great density. The os uteri is nearly always more or less open, so as to admit a small portion of the extremity of the finger, and the soft velvety sensation of the ulcerated surface is occasionally very evident, when the granulations are luxurious or fungous.

“Sometimes, if the disease is the result of difficult or instrumental labour, or of a miscarriage, the cervix is found deeply fissured, so as to present several lobes or lobules. When this occurs, even a practitioner who has had much experience in uterine disease, may be led to conclude that the affection is of a cancerous nature, unless he analyze very minutely the history and symptoms of the case; the more so, as it is in such instances that the general symptoms are the most alarming. I have met with several cases of this kind, in which so many of the symptoms of ulcerated uterine cancer were present, (cachetic cancerous tinge of the skin, extreme emaciation, abundant leucorrhœal discharge, often tinged with blood, occasional flooding, indurated, lobulated, and ulcerated cervix,) that it was with difficulty I could form a correct diagnosis. This may be done, however, if we attend to the history of the patient, and examine minutely the local state of the uterine organs. The origin of the disease may be always traced to difficult parturition.

The fissures divide the cervix into lobules, but each lobule is itself smooth and round, however indurated it may be. The fissures radiate from the os. The vagina is perfectly free at its union with the cervix, which is seldom the case in advanced ulcerated cancer. Moreover, in these extreme cases, the inflammation always extends deeply into the tissue of the uterus, the volume of which is increased. By pushing back the posterior or anterior cul de sac of the vagina with the pulp of the index finger, it is not difficult to ascertain whether or not the induration of the cervix extends to the posterior or anterior plane of the uterus. In order to ascertain whether the volume of the uterus itself is increased, one or two fingers of the right hand must be introduced into the vagina, the pulp of the fingers directed towards the pubis of the patient. The fingers being then placed underneath the cervix, and the posterior vaginal cul de sac pushed back, it is very possible to raise the uterus by them. If the left hand is placed at the same time on the hypogastric region immediately above the pubis, and the patient is told to relax the abdominal parietes, the abdomen may be depressed over the uterus, so as for the latter organ to be distinctly felt between the finger or fingers in the vagina, and the hand over the pubis. Its volume may thus be very accurately appreciated. The ovaries, lateral ligaments, indeed, the entire pelvic cavity, may be explored in this way with the greatest ease. It is, however, absolutely necessary, to accomplish this exploration satisfactorily, that the examination should be made whilst the patient is lying on her back. The two hands could not be used freely if the patient were placed on her side, as is usually the case in this country."

That ulcerations should be so frequent without having been at all suspected, will, we know, be surprising to some; but when we consider the various causes of irritation applied to these parts, the injuries and abuses to which they are subject, their existence can no longer be a matter of wonder. If any doubt the frequency of the forms thus far described by Dr. Bennett, they will probably be still more skeptical in relation to the occurrence of these ulcerations during pregnancy; but the following cases, and we might add another from our own experience, will show that pregnant women are by no means exempted from such disease.



*“Rather severe case, from the Thesis of M. Costilhes.*

“Clara B——, aged twenty-one, entered St. Lazare the 2d Sept., 1842, being in the fourth month of her first pregnancy. She has never had any syphilitic disease.—*Toucher*: neck voluminous, indurated, ulcerated, and sanguinolent; she has pain habitually in the hypogastrium.—*Speculum*: on the engorged cervix an ulceration the size of half-a-crown, of a fungous, vegetating nature, and violet coloured; abundant leucorrhœa.—*Treatment*: injections with decoctions of walnut leaves; cauterization twice a week with the nitrate of mercury; baths.—This treatment was continued until the 6th of March, without any perceptible improvement; she was then cauterized twice a week with Vienna paste solidified, (caustic potass and carbonate of lime,) and injections of the acetate of alum, three times a day, were substituted for those first used. The ulceration began to give way under this treatment, and was nearly well, when, on the 1st of May, she was taken in labour, and delivered of a full grown child. The labour was tedious, but unaccompanied by any unusual occurrence. The ulceration re-appeared after delivery, but gave way to emollient and then astringent injections, and she left cured, on the 6th of July.”

*“Severe ulceration of the cervix in a woman two months pregnant; cured by cauterization with potassa fusa.*

“Louise Lejeune, aged twenty-nine, two months pregnant, entered St. Lazare on the 28th of February, 1843. She was delivered of a full grown child a year previous, and miscarried five months ago, at two months and a half, without any assignable cause. On the cervix an ulceration, covered with fungous, vegetating granulations, three quarters of an inch in diameter; considerable inflammatory induration and hypertrophy of the urine neck, which is of a violet hue. Constant pain in the hypogastrium. Abundant mucoso-purulent discharge.

“On the 1st of March, the ulcerated surface was cauterized with the solidified potassa fusa. The cauterization was afterwards repeated once every week. A ball of lint, spread over with mercurial ointment, was daily applied to the ulceration; and vaginal injections of a decoction of walnut leaves were used three times a day.

“On the 27th of March, the granulations had lost their fungous character, and the deep violet hue which they at first presented, was less marked.

“On the 1st of April, the nitrate of silver was substituted to the potassa fusa, the treatment being otherwise the same; and on the 15th of May she left, cured. The cervix was still red where the ulceration had existed. All pain had disappeared.”

Passing over the Chapters on syphilitical ulcerations, we come to those most important to our readers, on the treatment of ulcerations of the uterine neck.

“INFLAMMATION OF THE CERVIX WITHOUT ULCERATION.

“To obtain the full effect of the injections, the patient should recline on the side of a bed, or of a lounging chair, elevating the pelvis, so as for the vagina to form an inclined plane, of which the cervix is the most dependent point. The vagina thus retains the injected fluid, like a vase; it penetrates gradually into every part, and remaining in contact with the inflamed tissues for a few minutes, exercises a decided influence on them.

“Not only is it possible to treat successfully non-ulcerated inflammation of the cervix without the introduction of the speculum, merely by emollient and astringent injections, rest, and attention to general health, but even slight ulcerations unaccompanied by general inflammatory hypertrophy, will give way under the same treatment. In order to establish this fact, I have repeatedly, after ascertaining with the speculum the presence of a superficial ulceration, treated the patient merely as described, without touching the ulcerated surface with caustic, and have found, in many instances, the inflammation diminish, and the ulceration decrease, and at last cicatrize. It is only, however, in cases of very slight ulceration, unaccompanied by general hypertrophy, that rest combined with emollient and astringent injection, succeeds; and even in these cases the treatment is much more tedious and uncertain than if cauterization of the ulcerated surface is at once resorted to and repeated as required.”

“INFLAMMATION OF THE CERVIX WITH ULCERATION.

“In order to apply a fluid caustic, the following plan should be resorted to:—A small thin stick, about a foot in length, having been chosen, is formed into a brush, by inserting between its divided extremities a little wool, lint, or old linen, which is then fastened by a few turns of thread. These little brushes may be made *ex tempore*, and being of



no value, can be thrown away when they have been used. The brush, having been introduced into the acid, should be pressed against the rim of the bottle, in order that it may be merely moistened with the caustic, and then thrown over the ulcerated surface. A little water must then be injected into the speculum before withdrawing it, in order to absorb any super-abundant acid. This precaution is not absolutely necessary, if care has been taken not to use too moist a brush. Owing to the powerful cauterizing properties of acid, it is perhaps, as well, however, for a person unaccustomed to the treatment of these diseases, to adopt the precaution. In that case a syringe, holding about half-a-pint of water, should be used, and the water injected before the speculum is withdrawn. By changing the position of the pelvis, the fluid may afterwards be easily made to fall into the basin. I often merely pour a little olive oil into the speculum; the effect obtained is the same. When the nitrate of silver is employed, no precaution is necessary. The contact of the uncombined caustic with the neighboring parts, nearly always inflamed, can only be productive of benefit. In cauterizing the cervix, the speculum must be *firmly* applied to the parts, so as to protect the vagina from the action of the caustic."

The diseases which affect the uterine system are perhaps of more importance to physicians of the Western States, than to those located elsewhere, for the prevalence and severity of these affections here is proverbial.

The fact that nearly all the women in the new states are young and inexperienced, and subject to all the causes of such affections, and in addition to many hardships and exposures and the influence which produces periodical diseases, as ague, &c, will sufficiently account for their frequency. For it is not to be forgotten that engorgements of the uterine body, or neck speedily affect the general system; and in their turn are aggravated by whatever deranges the functions of the system. It is perhaps a fault of the work of which we have been giving some extracts, that it tends to fix the attention too exclusively upon the local treatment, to the neglect of equally important general remedies. It is not improbable, also, that the entire neglect of mechanical means for giving support to the uterus when

displaced is a defect. For although the displacement may and be, in most cases undoubtedly is, produced by inflammation, it is no less true that it remains after inflammatory action is removed, and requires appropriate treatment. Experience, moreover, which has shown the general inutility of pessaries and supports has shown their value in some cases.

In short while we think that this work will render a service to the public, by drawing their attention to a class of affections but little known and badly treated, it is necessary to guard against adopting too exclusively the views of treatment therein set forth. D. B.

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#### ARTICLE IX.

*A Treatise on the Practice of Medicine.* By GEORGE B. WOOD, M. D., Professor of Materia Medica and Pharmacy in the University of Pennsylvania; one of the physicians of the Pennsylvania Hospital; one of the authors of the Dispensatory of the United States of America, etc. In two vols. 8vo. Vol. 1 pp. 791. Vol. 2 pp. 840. Philadelphia: Grigg, Elliot, & Co. 1847. (From the publishers. For sale by A. H. & C. Burley, Chicago, Ill.)

The above work forms two handsome volumes neatly executed in all respects. After reading the title, we opened the volumes with an agreeable anticipation of finding within a really valuable work on the Practice of Medicine. To say that our anticipations were realized would give but a feeble impression of our estimation of the work. Our anticipations were founded upon our personal acquaintance with the author, and our knowledge of his ability, amply, to accomplish the task he had undertaken. During the several years that we were in attendance upon his lectures, in the University of Pennsylvania, we also followed him through the wards of the Pennsylvania Hospital. During that period we listened with so much profit to his instructions, both didactic and clinical, that we formed the most exalted opinion of his acquirements as a therapist, both theoret-



ical and practical, and also of his perfect command of language, and agreeable style of expression,—great and acknowledged essentials in an author, as well as a teacher. When we speak of our estimation of Dr. Wood's ability as a therapist we would not be understood to undervalue his acquaintance with Nosology, Pathology, and the other departments of practical medicine, but merely to set forth his pre-eminence in this point, as giving to his work a *practical* value, which, without such capacity in its author, it could not possess. It is a fact which, in late years, has become notorious, that it is by no means the physician who makes with most ease a scientific diagnosis, and can give the most learned exposition of the Etiology, Classification, &c., of diseases, who is the most successful practitioner,—but that it is he who is most observant of the effects of remedies in a condition of health and disease, and who has perfectly at his command the shades of difference in his remedies, and aptness in applying them. But when we find these latter valuable traits combined, in the same mind, with habits of observation, and much knowledge by study and practice of the former also, we can wish for nothing more in an author of a work on practical medicine. Such a mind we confidently assert is possessed by Dr. Wood, and in proof of our assertion we will give our readers as a specimen of his style the entire article on “Pernicious Fever.” This article we have selected, not as superior in style or critical analysis of the subject to others, but as affording to our readers, in this specimen of the work, a most excellent treatise on a variety of fever, seen in this city (Chicago,) but seldom, but more frequently in places somewhat further south than this point. It is however occasionally seen in almost all miasmatic regions, and is so seldom recognized, unless frequently occurring, and so uniformly fatal unless its peculiarities are detected and the proper treatment applied in time, that it will be as useful we hope to those who only occasionally meet with it, as to those who daily have it to treat.

Previous, however, to the insertion of this extract, it will

be proper to give the reader an outline of the contents of the work, and some idea of the arrangement of the various subjects discussed.

Part I. treats of General Pathology, and Therapeutics. From the "prefatory remarks" to this part of the work will be gathered a sufficient insight into the manner in which the author disposes of this department of practical medicine.

#### "PREFATORY REMARKS.

"A Treatise on the Practice of Medicine, as the term is now generally understood, embraces all those branches of medical science, with the exception of Midwifery and Surgery, which have a direct reference to the knowledge and treatment of disease, and to the preservation of health.

"That department of the Practice which has for its object the *knowledge* of disease is called **PATHOLOGY**, and is divided into *general pathology* and *special pathology*, the former treating of what is common to diseases in general, or to a number of them, the latter of what is peculiar to individual diseases. The second great department of the Practice, or that which concerns the *treatment* of diseases, is called **THERAPEUTICS**, which may also be considered as *general* or *special*, according as it teaches the principles of treatment common to many complaints, or the particular course demanded by each one separately. The third department, which embraces the *means of preventing* disease, or in other words of preserving health, has received the name of **HYGIENE**.

"But, notwithstanding this scientific arrangement of the different subjects of practical medicine, it has been found that the natural mode of teaching is the most effective. A stronger impression is made on the mind of the student, and one more available for practical purposes, by presenting him with a vivid picture of each disease in all its bearings, as it must hereafter offer itself to his attention, than by distributing its dissected parts among the various sciences to which they respectively belong, and thus separating what he will afterwards be compelled to put together again in practice. The former plan, therefore, will be followed in the present work. But there are numerous points in relation both to pathology and therapeutics which are common to many diseases, and which may with great propriety be treated of in general, so as at once to render the subsequent study of particular diseases more easy, and to spare



the necessity for much and wearisome repetition. Before proceeding, therefore, to an account of individual diseases, I propose to throw together, in the first part of the work, such principles and facts of universal or extensive applicability, as appear to me to be well established, avoiding speculation as much as possible, and seldom stopping to discuss the numerous hypotheses which have risen and disappeared, in rapid succession, in this as in other branches of medicine.

*“Definition of Disease.*—Disease may be defined to be a derangement of the organization, or of one or more of the functions of the body. But this definition is defective, like almost all others referring to natural processes, which so run into one another that a precise line of distinction can seldom be drawn between them. In the performance of every function, and in the condition of every organ, there is considerable diversity within the limits of health; and a state of things which, if continued, would constitute disease, may be so fugitive as not to merit the name; so that, both in point of degree and duration, it is often impossible to say, of any particular variation from the ordinary condition of the system, whether it is healthy or morbid. For practical purposes, however, perfect accuracy of distinction is unnecessary. Derangements have usually passed considerably beyond the boundary which separates health and disease, before they are brought to the notice of a physician.

*“Division of the subject.*—In this part of the work I shall treat, *first*, of the CONSTITUENT FORMS of disease, or of those derangements which, by their various combination, constitute diseases as we ordinarily see them; *secondly*, of the causes of disease considered generally, forming the subordinate branch of pathological science denominated ETIOLOGY; *thirdly*, of the exploration of disease, in other words, the modes in which diseases may be recognized, one disease distinguished from another, and the whole course of each traced to its probable termination—a branch of general pathology which may be designated as SYMPTOMATOLOGY; and *fourthly*, of the general principles of treatment, or GENERAL THERAPEUTICS. Whatever observations may be necessary on the subject of HYGIENE will be most conveniently made in connection with individual diseases.”

It would require too much space to give our readers even a faint impression of the value of this part of the work; which comprises 219 pages; so that we must be content

with the expression of our candid opinion that it is at once the most complete and concise treatise on General Pathology, which it has ever been our good fortune to peruse.

Part II. treats of Special Pathology and Therapeutics. We give the "prefatory remarks" to this part of the work, also, as comprising a more clear idea of the mode of treating the subject than we could express in the same number of words.

#### "PREFATORY REMARKS.

"The object of this part of the work is to treat of diseases individually; and each will be considered separately in all its relations.

"Diseases are certain associations or groups of morbid states or phenomena, offered by nature to the notice of the observer. If examined carefully, they will be found to consist of two different sets; one, embracing all the cases in which the true pathological condition gives its name to the disease, the other, those in which certain prominent effects or phenomena are considered as the disease; the real morbid condition being kept in the back ground. As examples of the former may be adduced pleurisy, pneumonia, and gastritis, or inflammation severally of the pleura, lungs, and stomach; of the latter, diarrhoea, dropsy, and the hemorrhages, in which the title is derived from the secretion or effusion, in other words, from a mere effect of the proper pathological condition, from which the secretion or effusion proceeds. Some may object to the propriety of admitting the latter group into the list of diseases; but, as it is upon the effects alluded to that the attention is chiefly fixed, while the true pathological state may not be obvious, and may even be a subject of dispute, it will be most convenient to comply with the general custom; especially as, to the uninstructed, these phenomena will always constitute the several diseases, and names expressive of them will always hold their place in the common language. To the physician, however, it is important to look beyond the phenomena to their causes, and to fix his attention upon these as the true objects of his concern.

"A vast amount of time and industry has been expended in the formation of systems of nosology. It is not the intention of the author to discuss their merits. Imperfect they all necessarily are; because diseases are not yet sufficiently understood to permit us to see clearly their mutual



relations; and systems founded upon this basis must be constantly changing with new discoveries, and the adoption of new views. In this uncertainty, that plan of arrangement appears to the author to be the best, which is most convenient, and which may tend to direct the attention rather to what is positively known, than to the conjectures and peculiar opinions of authors. Such a plan is the one based upon the seat of the disease, and this it is here proposed to adopt.

“Diseases will be placed together, which are situated in the same parts; and no other attention, in the mere arrangement, will be paid to their mutual relations, than to form distinct groups, in each division, of such as may have the closest analogy. Upon comparing diseases, we find occasion to divide them into three great classes, having reference to their seat. The *first* class includes those diseases which occupy the whole system at the same time, and in which all the functions are simultaneously deranged. To the *second*, belong constitutional affections which may display themselves in local disease in any part of the system, but not in all parts at the same time. The *third* class embraces all the proper local diseases, or those which essentially affect some particular structure or function, and in which, any general phenomena that may be presented, are only secondary. This portion of the work will, accordingly, be distributed into three divisions, corresponding with the classes mentioned.”

#### “GENERAL DISEASES.

“The only diseases which belong strictly to this division are fevers. No other acute affections involve, like these, all the functions of the body; and if, in certain chronic affections, the system may become in some instances universally diseased, it is only in the advanced stages; and this universality is not, as in fevers, an essential part of their constitution.

“It will be recollected that, in the essay upon fever, in the first part of this work, the distinction between the essential idiopathic fevers, and the symptomatic were fully recognized. It is only of the former that I propose to treat in this place. Symptomatic fever is dependent solely on the local affection, owes all its importance to that affection, and ceases along with it. In fact it is the inflammation that constitutes the disease. The phlegmasiæ, therefore, as those diseases are called which consist of inflammation and consequent fever, are ranked along with the diseases of the organs in which they are severally seated.

“Idiopathic fevers have been variously divided and subdivided, and have received a great diversity of names, according to the views of different writers. Thus we have *intermittent*, *remittent*, and *continued* fevers; *synocha*, or *inflammatory fever*; *typhous*, *asthenic* or *adynamic fever*; and *synochous* or mixed fever, beginning as *synocha* and ending as *typhous*. To these, *congestive fever* has been recently added. But these diversities have reference merely to difference of form, grade, or type, and any one fever, that is, any febrile disease distinguished from others by the nature of its cause, may have all these different characters. Thus, the same fever, produced by the same cause, may be in different individuals, or in the same individual under different circumstances, either intermittent, remittent or continued, inflammatory, typhous, synochous, or congestive. Again, many distinct fevers have been made out of accidental complications; such as *gastric*, *gastro-enteritic*, *hepatic*, and *cerebral* fevers, so called in consequence of the predominance of disease in the several organs which gave origin to the names. But this nomenclature, so far as it has been applied to idiopathic fevers is incorrect; as it would seem to imply some essential difference between the diseases thus distinguished, whereas they may be absolutely the same disease, merely diversified by the occurrence of inflammation or irritation in one organ rather than in another. But, in very many instances, the diseases named as above have been nothing more than cases of phlegmasiæ, and would have been more properly entitled gastritis, gastro-enteritis, hepatitis, and encephalitis. It appears to me that, in the arrangement of fevers, we should endeavor to find out some essential difference between them, something which characterizes them as distinct diseases, peculiar in their phenomena and nature, and incapable of being converted into each other. Now such a basis of arrangement is offered in the peculiarity of the cause. Upon examining the various fevers considered essential or idiopathic, we find that, as a general rule, certain individuals are produced by one cause, others by another, others again by a third, and so on through almost the whole list; and we find further, that those produced by one of these causes cannot be produced by another, each set requiring its own particular cause. Here, then, is an excellent, and, as it appears to me, quite unobjectionable ground of association. The cases produced by the same cause may very properly be treated as belonging to the same disease; and any incidental peculiarities of form, type, &c., should serve only as the ground of varieties.



These different diseases have only one thing in common; namely, that all are attended with that proximate constituent of disease, called abstractly fever, or febrile movement. There is only one among them, in the arrangement of which, upon this plan, any great difficulty exists; and the difficulty, in this instance, arises from our ignorance of the cause. Nevertheless, in relation to that particular affection, there is so much to identify it in its phenomena, course, circumstances of occurrence, and anatomical characters, that we can scarcely deny its claim to individuality, though its cause is hidden, or at best obscure. The disease alluded to is that denominated variously, *continued fever*, *nervous fever*, *slow or protracted remittent*, *typhoid fever*, *typhus minor*, *dothinenteritis*, &c., and which I propose to denominate *enteric fever*.

“Proceeding upon the plan above laid down, I shall treat of the following fevers, as distinct diseases, viz:—

- |                              |                                   |
|------------------------------|-----------------------------------|
| 1. Irritative fever, [fever, | 7. Small-pox, or Variola,         |
| 2. Miasmatic, or bilious     | 8. Vaccine disease, or vaccina,   |
| 3. Yellow fever, [fever,     | 9. Chicken-pox, or varicella,     |
| 4. Enteric, or typhoid       | 10. Measles, or rubeola,          |
| 5. Typhus fever,             | 11. Scarlet fever, or scarlatina, |
| 6. Plague,                   | 12. Erysipelas.                   |

“Of several of these there are varieties which require distinct notice, and some of them distinct designations. Thus, miasmatic or bilious fever is distinguished into intermittent, and remittent, each of which may be mild or malignant, or to use a phraseology now fashionable, inflammatory or congestive. Of the fevers above mentioned some have circumstances in common which might serve to associate them in distinct subdivisions. Thus, some are propagated by contagion, and are hence called *contagious fevers*; some have the property, in common, that they are attended with an eruptive affection, and are denominated *eruptive* or *exanthematous fevers*; Now it happens that these are in many instances interchangeable terms; most contagious fevers being exanthematous, and most of the exanthemata contagious. But this is not universally the case. The contagious and exanthematous fevers are entirely distinct individually; for, though they have certain points of similarity, each has its own peculiar traits, and its own peculiar cause.”

#### “CONSTITUTIONAL DISEASES, &c.

“The above title does not exactly designate the diseases belonging to this class. It is used for the sake of brevity,

with a somewhat arbitrary application. As already stated (*see page 221*), the second class embraces constitutional affections, which may display themselves in local disease of any part of the system, but not in all parts at the same time. This want of universality excludes them from the first class: and, as they frequently occupy several different organs at once, and may pass from any one organ to any other during the same attack, they cannot be placed in the category of affections strictly local.

“The only diseases which I place in this class are rheumatism and gout. There are others that properly belong to it, but, for convenience sake, are considered elsewhere. One of these is scrofulous or tuberculous disease. This is certainly a constitutional affection, and may show itself in any one part, or in many parts of the system at the same time. But the local affections are of so fixed a character, are in some instances so strongly marked, and so universally looked upon as constituting distinct diseases, that they are advantageously described rather in reference to their position than their nature. Hence, I have treated of what concerns the disease generally under general pathology, and propose to treat of its local exhibitions, as phthisis, external scrofula, mesenteric disease, &c., among the local affections belonging to the third class. The same remarks are applicable to carcinoma or cancer, and to the melanosis. Syphilis, in its advanced stages, would also be attached to the present class, were it admitted into this work; but it is so generally considered as a surgical disease, and so fully treated of by surgical writers, that it may be omitted without inconvenience, in a treatise upon the practice of medicine. With regard to rheumatism and gout, it may be thought that the fever which attends them should rank them in the first class; but fever is not a necessary accompaniment of these diseases; and when it occurs, is almost always secondary, and dependent on the local affection.

#### “LOCAL DISEASES.

“This is much the largest of the three classes in which diseases are arranged in the present treatise. It embraces all those which have their seat primarily or essentially in any one organ, tissue, or function. The local affection is often accompanied with constitutional symptoms; but these are secondary: as in the phlegmasiæ, in which the fever depends on the inflammation. It is true that, among the following diseases, are also many which are results of con-



stitutional derangement; but, in these instances, the local affection is so striking and important as chiefly to engage attention, and always to have ranked among diseases, with a distinct title; while the constitutional disorder, from which it may have sprung, is often concealed and unknown. Such are the local tuberculous affections, many instances of dropsy, and not a few cutaneous eruptions.

“I have preferred the several functions as the basis of arrangement in this class, in the region of the body; because it often happens, that a particular disease, though confined to one function, overleaps the region, and may in fact occupy several regions, as dropsy occurring at the same time in the chest, abdomen, and external areolar tissue. In the order of the functions, I begin with that which nature has placed first and lowest in the scale, and follow her course through the remainder. Pursuant to this plan, the diseases connected with the digestive system come first in order; then those of the absorbent system; and afterwards successively those of the respiratory, circulatory, secretory, nervous, and reproductive systems.

“In each group of diseases, those which consist in inflammation of the parts concerned are first treated of; because they are in general better understood and more easily recognised, and consequently, when known, serve as standards of comparison for the more obscure functional affections.”

The article on Pernicious Fever, which we promised our readers in our opening remarks, for want of room we are obliged to omit until our next number. We shall accordingly close our notice of the admirable work whose title leads our article with the single remark, that we recommend it with all confidence as the most complete and perfect work on the practice of medicine which has ever been issued from the American press.

J. V. Z. B.

## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE X.

*Elementary Chemistry, Theoretical and Practical.* By Geo. Fownes, Ph. D., Chemical Lecturer in the Middlesex Hospital Medical School, and to the Pharmaceutical Society of Great Britain. Edited with Additions by Robert Bridges, M. D., Professor of Chemistry in the Philadelphia College of Pharmacy, etc., etc. A new edition, with numerous illustrations. pp. 460, 12mo. Philadelphia. Lea & Blanchard. 1847. (From the publishers. For sale by Joseph Keen, Jr., Chicago.)

We have previously noticed the first American edition of this little work in terms of commendation and it gives us much pleasure to announce a second edition. It has been but two years since it first appeared in this country and the demand for it, which has brought out the present edition, alone proclaims sufficiently its merits. The American Editor has brought up the several subjects to the present date and thereby increased its value. We again most cheerfully recommend it as the best text book for students in attendance upon Chemical Lectures, we have yet examined.

J. V. Z. B.

## ARTICLE XI.

*An Analysis of Physiology ; being a condensed view of its more important facts and doctrines.* Designed especially for the use of Students. By John J. Reese, M. D., Lecturer on Materia Medica in the Medical Institute of Philadelphia ; Fellow of the College of Physicians ; Secretary of the Philadelphia Medical Society. Philadelphia ; J. G. Auner. 1847. pp. 314, 12 mo. (From the Author. For sale by Joseph Keen, Jr. Chicago.)

We have, several times, expressed our doubts of the ex-



pediency of furnishing to students of medicine, works of an exceedingly condensed character, and *intended to facilitate* their studies. That it has the *tendency* to make them superficial, by removing the necessity for the study of larger and more explanatory works, but few will doubt. The form of Catechism is, however, much more objectionable than that of simple condensation. The work before us being of the latter description is, on that account, less objectionable than it otherwise would be. We should also fairly state, that for its size it is very comprehensive, and would, if used *only* as a means of review by students attending a course of Lectures on Physiology, doubtless be a sufficient introduction to the study. For such purpose we would recommend it as affording a good synopsis of this department of medicine. The most recent works have been used by the author in preparing his little work, and to him the credit is due of having well performed the rather difficult task of condensation, without loss of perspicuity. Dr. Reese has had some experience in the conduct of examinations and instruction of students, and is consequently well qualified to judge of the points most essential to retain to preserve a correct and complete outline of the science.

J. V. Z. B.

## PART IV.—SELECTIONS.

1. *Adulteration of Medicines.*—The attention of the profession is invited to the following statement from the New York College of Pharmacy:—

**CAUTION TO DRUGGISTS.**—The Committee of Inspection of the College of Pharmacy, are instructed by the Board of Trustees to call the attention of druggists to another dangerous fraud. A quantity of base composition, under the name of Blue Pill, is now in market, having been lately imported by, or consigned to and sold by Messrs. Cumming, Dodge & Co., of this city. It contains but little more than one-fifth of the proper proportion of mercury, according to the examination of Prof. Reid, of this College, made at our request, that we might have the corroborating testimony of the best analyst in the city. His certificate of its composition, which we append, shows an extent of methodical depravity in the manufacture, against which honest dealers will have to oppose extreme vigilance in the inspection of what they buy.

The article under notice is put up in rather large, white, flat-covered jars, containing one pound each; the joint covered with course pink-colored muslin; white label with nothing upon it but the British arms and the words "Blue Pill," in rather heavy letters in blue ink. The mass has tin foil laid over it, under the earthen cover.

From what we learn of its history, this spurious compound was made by William Bailey, of Wolverhampton, whose manufacture of similar Blue Pill, two years ago, was so faithfully exposed by the late Mr. Adamson. A transcript of the correspondence on that occasion may be found in the American Journal of Pharmacy, Vol. XI., (New Series), p. 148. Mr. Adamson's letter still remains unanswered.

G. D. COGGESHALL,	} Committee of Inspection.
JNO. H. CURRIE,	
WM. HEGEMAN,	

New York, Aug. 9th, 1847.

NEW YORK HOSPITAL, Aug. 6th, 1847.

*Dear Sir,*—According to the request of the Inspection Committee of the College of Pharmacy, I have made an



extended investigation into the composition of the Blue Pill furnished me, and have to report the following concerning this dangerous and heartless fraud.

Its composition by analysis is:

Mercury,	7.5
Earthy Clay	27.0
Prussian Blue, used in coloring,	1.5
Sand in combination with the clay,	2.0
Soluble saccharine matters,	34.0
Insoluble organic matters,	12.0
Water,	16.0

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I could not see anything differing in the state of combination of the mercury, from that generally found in Blue Pill.

The density of the pill is about the same as the genuine. This is accounted for by the large quantity of earthy matter, which, in combination with the water, gives the requisite specific gravity, and makes the deception more plausible.

The presence of so much earthy matter furnishes us with an easy means of trying it. Place 100 grains on a clean iron plate or shovel, and place the shovel over the fire until the pill is reduced to an ash. The genuine gives 2 per cent., or near it; this 29 per cent.

The per centage of mercury can be ascertained by a process proposed by me, and described in the American Journal of Pharmacy for 1844.

Your's Respectfully,

(Signed) LAWRENCE REID.

Mr. Geo. D. Coggeshall, Chairman of the Committee of Inspection of the College of Pharmacy.

*Remarks.*—This is but a sample of the numerous impositions practised upon American physicians in the manufacture and sale of drugs. We have again and again adverted to the frauds constantly carried on in the manufacture of spurious medicines, and have invited druggist and others conversant with these impositions to expose them through the medium of our pages. We have received in reply two or three letters, which have been published in former numbers of our Journal. We solicit still further communications on this subject.

It may not be generally understood, that the importation of drugs and medicines into this country, is chiefly in the hands of commission merchants, mostly foreigners, (German and French,) who are not druggists by profession, and who

know nothing of medicines, except to buy cheaply and sell dearly. These men supply our wholesale dealers, who, for the most part, have nothing to do with the importation of the articles in which they deal, and who are not unfrequently imposed upon, as in the case of Blue Pill, as above stated. The commission dealers have agents, travelling and resident, abroad, who buy up the refuse drugs in all the principal European cities, and send them to this country, where they generally meet with a ready sale. We may mention, for example, *Rhubarb*, of which, we are credibly informed, there have been but two invoices of a good article (*Turkey*) brought into this market since last December. Immense quantities, however, have been imported, of a worthless, worm-eaten article, called *Turkey*, invoiced from *two pence to eight pence sterling*, from *four to sixteen cents per pound*, which we have reason to know, has been ground and sold to our retail druggists for genuine Turkey Rhubarb, worth four or five shillings a pound. The *Compound Extract of Colocynth*, which has been imported into this market for the last year, does not contain a particle of Colocynth, but is made up of an inferior sort of aloes, with some other worthless ingredients. A great proportion of the Compound Extracts are adulterated in like manner. More than half of the narcotic and other extracts, as of *Balladonna*, *Conium*, *Hyoscyamus*, *Aconite*, *Rhatany*, etc., are entirely destitute of any active properties, as we know from our experience, and *Opium* is now rarely to be met with in a genuine form. The *Attar of Roses* is more frequently than otherwise adulterated with the oil of Rhodium, of which there is also an artificial compound prepared for this purpose. Our *Volatile Oils* are adulterated more than half with sweet and other cheap oils. The *Hydrargyrum Ammoniatum*, U. S. P. *White Precipitate*, of Bailey's manufacture, (Wolverhampton,) is now as much adulterated as the sample of *Blue Pill* from the same house, analyzed by Prof. Reid. This is an article of a chemical nature, which should, if prepared according to the Pharmacopœia, always be of the same quality; and yet we have its invoice price ranging from three to six shillings sterling per pound, *according to quality*. We have not ascertained whether it is mixed with *clay*, like the blue pill, *white lead*, *chalk*, or *gypsum*, but we have no doubt that one of these will be found to constitute more than 50 per cent. of it, whenever an analysis may be made. An article is now imported, under the name of *Colocynth Powder*, which is probably *Colocynthin*, mixed with some inert vegetable powder; this varies in our custom house invoices,



from 5 to 14 shilling sterling per lb., and is often two-third adulterated. The *Extract of Rhubarb*, from 4 to 9 shillings sterling per pound, according to quality. The *Extract of Sarsaparilla*, as now imported, is a worthless imposition. *Quinine* is now imported in bulk instead of bottles. These latter are now manufactured here, together with the *labels*, according to the latest French patterns, usually the *Pelletier* stamp, we believe is preferred. The *Quinine* now generally in use in this country, is at least one-half *Salacine*; this latter being imported very extensively for this purpose, at an expense of less than one-third that of quinine. Some dealers, however, use flour or starch for the same purpose. We believe that it is owing to the adulteration of this article that such *large doses* are required, and *safely borne*, in the malarious diseases of the South and West. We have known practitioners in these regions occasionally get hold of a genuine article, and they very soon found that their patients, so far from requiring a *drachm*, or even half that quantity, found from five to fifteen grains sufficient. The house of *Teschdorf, Fischer &c.*, of Hamburg, send us immense quantities of drugs of every description, especially of *Extracts*, as of "*Carduus Benedictus*," "*Chelidonium*," "*Fumaria*," "*Gratiolus*," "*Lactuca Virosa*," "*Millefolia*," and "*GRAMINIS*"! Where are these articles used? What are the medicinal properties of the *Extract of Grass*? The only use for the latter, we have very good reason to believe, is to mix with genuine extracts for the purpose of dilution. The invoice price of these extracts varies from forty cents to \$1,75 per pound.

Much of the *Nitrate of Silver*, so called, now on sale in our wholesale drug establishments, does not contain a particle of the metal; whether the substitution is prepared here or abroad, we do not know. Of the *Hydriodate of Potash* also a large proportion is utterly worthless, *Iodine* not entering into its composition; the article is extensively imported in this shape. In order to have an article on which they can depend, we would recommend physicians everywhere, to prepare their own Hyd. of Potash, which can be readily done as follows:—Heat slightly a mixture of 100 grains of *Iodine*, 2 drachma of water, 75 grains of carbonate of potash, with 30 grains of iron filings. The mass is dried to redness. The resulting red powder is heated with water, then filter and evaporate to dryness; 100 parts of *Iodine* will thus furnish 135 parts of very white iodide of potassium, but slightly alkaline.

Thus we could go through with the whole catalogue of



medicines in daily use by the physician. It is now well known that there are establishments abroad for the express purpose of manufacturing spurious drugs for the American market, and it is high time that something was done to put a stop to it. As one important step towards reform, we hope that our wholesale dealers will hereafter import their own medicines, and not trust to a set of sharpers, who think more of money than they do of life and health. There is no propriety in leaving this branch of business in the hands of men who are not competent judges of the genuineness of the articles in which they deal. In the next place, we hope Congress will, at their next session, pass a law, forfeiting all spurious and adulterated drugs, and subjecting the owner or consignee to heavy penalties. We have appraisers now connected with the Custom House, who are regularly-educated physicians and chemists, and who are fully competent to detect these impositions, whenever they may be practised. At present, although the government is fully aware of these extensive frauds, it has no power whatever to prevent them; its *ad valorem* estimation may be *nothing*, or next to nothing, as in the case of the rhubarb, appraised *in the invoice* at two pence sterling per pound; but it has no right to exclude the article from our markets. We need a stringent law, to prevent such practices in future. Again, physicians must purchase their medicines in the crude state, and not in powder; if they do, they will be imposed upon nine times out of ten. They must make their own extracts, syrups, pills, and tinctures. They must resort more frequently to the use of our indigenous medicines, and never employ a foreign article where a domestic one will answer the purpose. When they do purchase, they should buy only of those wholesale dealers who import their own stock; and not take their articles from those who are unacquainted with the characters of genuine drugs. And lastly, they should deal only with those who sustain the reputation of being *honest men*, and whose consciences would not allow them to go on quietly in the daily practice of imposture and deception, involving the lives and health of their fellow-men. We hope the "New York College of Pharmacy" will pursue this subject, and expose a few more of the frauds now practised in the manufacture and sale of medicines. And although we are not personally acquainted with the Hon. Secretary of the Treasury, R. J. Walker, Esq., we have reason to believe that he will cheerfully co-operate in bringing about a reform in this matter, and thus put a check to the importation of spurious and adulterated articles, which



not only detract largely from the public revenue, but prove destructive to the lives and health of our citizens, and often fatal to the reputation of the regular practitioner of medicine.

[Since the above was written, and in the hands of the printer, we have received the following communication from the New York College of Pharmacy.—ED.]

NEW YORK, August 24th, 1847.

SIR.—In behalf of the College of Pharmacy of the city New York, I have the honor to submit for your consideration, and insertion in your valuable Journal, the proceedings of the Board of Trustees, in relation to the importation from Europe of large quantities of sophisticated pharmaceutical and chemical preparations, which must often prove highly injurious to those who may be subjected to their use.

The College has, for many years, exerted all its influence to oppose this system of culpable speculation, by cautioning dealers, through the public prints, against the purchase of such articles as were proved by careful analysis to be dangerous. This it has done cheerfully and fearlessly.

These efforts having proved insufficient wholly to suppress this alarming evil, the College has resolved to ask the co-operation of the other Colleges of Pharmacy, and all the medical institutions and practitioners in both branches throughout the Union, in an application to Congress for a law, declaring that all pharmaceutical preparations and chemicals, which shall be found, upon careful examination, to be spurious, shall be confiscated and destroyed.

With the assurance of my perfect esteem,

I remain your obedient servant,

JOHN MILHAU, Pres. of Coll. Phar. of N. Y.

To Chas. A. Lee, M. D., Editor N. Y. Jour. of Medicine.

At a special meeting of the Board of Trustees of the College of Pharmacy of the City of New York, held on August 9th, 1847, convened for the express purpose of taking into consideration the best measures to prevent the introduction, throughout the United States, of sophisticated and misnamed Chemical and Pharmaceutical preparations—it was unanimously

*Resolved*, That the officers of this institution be requested forthwith to call the attention of the Secretary of the Treasury of the United States to the fact, that large quantities of spurious medicinal preparations are being introduced daily into this country, not only to the prejudice

of the Custom House revenue and the honest importer, but in the sequel jeopardizing the health and lives of all those who require medical aid, throughout the land. That the Secretary of the Treasury be respectfully requested to apply the most stringent regulations within his power, to check this alarmingly growing evil.

It was further *Resolved*, That the Philadelphia College of Pharmacy and other Colleges of Pharmacy and Medicine, be officially requested to unite with us in presenting a memorial to Congress, to devise means to suppress this most dangerous fraud, by making all such sophisticated articles liable to forfeiture

JOHN MILHAU, President.

GEO. D. COGGESHALL, }

OLIVER HULL, }

WM. L. RUSHTON, }

*Vice  
Presidents.*

JOHN SNOWDEN, Sec.

JAMES S. ASPINWALL, Treas.

2. *Alum in Pertussis.*—Dr. Davies thus speaks of the employment of alum in pertussis:

“After a long trial, I am disposed to attach more importance to alum as a remedy in whooping cough, than to any other form of tonic or antispasmodic. I have often been surprised at the speed with which it arrests the severe spasmodic fits of coughing; it seems equally applicable to all ages, and almost all conditions of the patient. I was formerly in the habit of taking much pains to select a certain period of the illness for its administration, and of waiting until the cough had existed at least three weeks, taking care that the bowels were open, the patient free from fever, the air-passages perfectly moist, and the disorder free from complication of any bruit. A continued observation of the remedy, however, has induced me to be less cautious, and I am disposed to think that a very large amount of collateral annoyances will subside under its use. The fittest state for its administration will be a moist condition of the air-passages, and freedom from congestion, but an opposite condition would not preclude its use, should this state not have yielded to other remedies. It generally keeps the bowels in proper order, no aperient being required during its use. The dose for an infant is two grains daily; and to older children, four, five, and up to ten or twelve grains, may be given, mixed with syrupus rhœados and water. It is seldom disliked.”—Underwood’s *Diseases of Infants*, in *Buff. Med. Jour.*



3. *To the Editor of the Annalist; Sir,*—It is a matter of surprise to me, as I know it is to yourself, that so little interest is manifested by the profession at large in reference to the exposure of quackery, and many kindred evils which operate so injuriously to their interests. One of these kindred evils I wish to bring to your notice, and through your valuable periodical to introduce the same to the particular attention of my professional brethren. I mean the very general practice of our apothecaries in prescribing for, and administering to, individuals who choose to consult them. This is an evil of which all have reason to complain, and it is one which I think the Academy of Medicine would do well to notice, with the view of taking certain steps towards its removal. Go into any apothecary's shop you please, and remain there half an hour or so, and you will almost always find some one come in to consult the apothecary, who never lets him go away without a dose of some sort. This is a common practice among the fraternity, and is one which is fraught with serious evils; for these persons are not always competent to prescribe, if they are to compound. Not unfrequently great mistakes are made by them, in prescribing either the wrong remedy, or in giving an over dose, and death may be the consequence. The apothecary has no just right thus to interfere with what strictly belongs to the physician. His business is to provide himself with the purest drugs, and to compound them according to the prescribed formulæ. It is not necessary for him to be thoroughly acquainted with their particular properties, doses, &c., though some knowledge of this kind is useful to him, as well as to the physician who employs him.

I hope that, as the profession has of late manifested a disposition to maintain its dignity, and to advance its interests by a bold and decided opposition to whatever bear the least relation to quackery, it will see the propriety—nay, the necessity of adopting some measures against this encroachment on one of its principal prerogatives.

Let but unanimity of sentiment and unity of action prevail, and in due season the object will be accomplished.

MEDICUS.

4. *Influence of terrestrial and atmospheric Electricity upon the human system.*—M. Pallas, principal physician in Algiers, presents the results of observations he has recently made in Africa, in order to study the influence of atmospheric and terrestrial electricity upon the human system and to modify the pernicious influence of this physical agent by



isolation. This work, which is interesting to the etiology, nature and treatment of the diseases of warm climates, may be condensed into the following propositions:

1st. The majority of the diseases, especially those which belong to the class of neuroses, are occasioned by the influence of increased general electricity, of which the thunder clouds and marshy districts are the most abundant sources.

2d. The marshes, by their geographical arrangement and the effects they produce upon the animal economy, present the greatest analogy to the galvanic pile. Indeed their action is pernicious and fearful in proportion to the organic and saline matters which their waters hold in solution; hence the reason why salt marshes and those near the sea-coast are peculiarly injurious to health. The drying up or submersion of marshes present conditions analogous to a galvanic pile deprived of moisture or overflowed, the effects of which are null or very trifling.

3d. The works of naturalists and physiologists have demonstrated that the electricity produced by our machines exerts a special influence upon the nervous system; experience and close observation of facts prove that the diseases developed in a marshy atmosphere are always primarily nervous; and when they become inflammatory it is always by the reaction of the nervous system upon the heart and blood vessels that local and general phlegmasiæ are produced.

4th. The neuroses and intermittent fevers being occasioned, not by the action of a miasm that has never been detected either in the air or in the water of marshes, but through the influence of the exaggerated electricity, any means by which this morbid influence can be modified must naturally and reasonably be the best,

5th. Electric isolation happily fulfils this indication. This isolation may be obtained by fixing to the bed-steads, sofas and chairs, glass or resinous feet. A large number of observations have proven to me that all the patients thus isolated have been cured or relieved of distressing diseases, many of which have resisted all other known means.

The striking analogy between marshes and the galvanic pile, the nature of the affections produced under the influence of atmospheric and terrestrial electricity, and the method of combatting them by isolation, leads us therefore, naturally to the conclusion that not only the diseases of which we speak, but all those which appear epidemically and whose etiology is unknown, are to be attributed to an exag-



generation of general electricity, the intensity of which must produce those varied electro-magnetic conditions which disturb the harmony so necessary to the continuance of human health.—Translated from *Gazette Medicale de Paris* for the *South. Med. & Sur. Jour.*

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5. *Hereditary Transmission of Insanity.*—M. Baillarger, in his "*Statistical researches on the Hereditary Transmission of Insanity*," arrives at the following conclusions:

1st. The insanity of the mother is more readily transmitted than that of the father.

2d. The mother's insanity is more apt to affect her daughters than her sons: that of the father is more apt to affect the sons.

3d. Sons are not more apt to derive insanity from the mother than from the father; but daughters are most subject to the insanity of the mother.—Translated from *Gaz. Medicale de Paris* for *Ibid.*

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6. *New Method for the Union of Wounds.*—M. Baudens, surgeon in chief at the "Val-de-Grace," addresses a letter to the Academy, in which he presents a method for uniting wounds which he has recently discovered, and which he daily practises with complete success at the hospital of "Val-de-Grace." This simple and efficient method is not, according to M. Baudens, liable to the same objections as adhesive plasters and sutures. The following is the author's description of his method:

"If we have to unite the flaps, resulting from a tibio-tarsal amputation, we fix in the bandage carried circularly above the amputation two strong pins, the one in front and the other behind, taking care to leave their heads and points free. The middle of a long cotton thread is now passed like a noose under the free ends of the pins. The threads are then brought down so as to cross each other upon the flaps approximated by the fingers of an aid, and carried up to the pin of the opposite side, to be again brought down so as to operate as a uniting bandage as often as may be necessary, sometimes parallel with the axis of the limb and sometimes crossing each other so as to form a figure of 8. The threads ligating the arteries are also attached to the pins so as not to be torn away when the dressing is removed. The cotton threads exercise a gentle pressure, they are not easily impregnated by liquids, and may maintain their position a long time. The air and the spaces between them permit the humors of the wound to flow read-

ily, and the traction they exert upon the circular bandage placed above the amputation tends to bring down the flesh and to prevent its forming a cone."

This mode of union is applicable to all wounds in general, but it is necessary to know how to place suitably the bandages for the pins. M. B. succeeded remarkably in thus effecting a lineal and prompt union of the wound resulting from the removal of a large wen from the head.—Translated from *Ibid*, for *Ibid*.

7. *Burns treated with Ammonia*.—M. Guérard, physician to the "*Hotel Dieu*," has used, for upwards of twenty years, a concentrated solution of ammonia\* in burns of the first and second degrees. He has frequently happened to burn himself with charcoal, phosphorus, gunpowder, &c., and the immediate application of this remedy has always arrested any further development. When the ends of the fingers are burnt he plunges them in the liquid without admixture of water. If the seat of the burn was such as to prevent this immersion, he would cover it with a compress dipped in the ammonia, and would prevent its evaporation by covering it with dry cloth. In such cases it is necessary to repeat the application from time to time, whenever the heat or sensation of burning returns. As soon as the ammonia is applied the pain ceases, and the relief continues longer, in proportion to the strength of the solution. According to what M. Guérard has himself experienced he believes that the application should be continued at least an hour, in order to give permanent relief, after which the burn may be left without any further dressing. If the burn be extensive, one hour will not be sufficient, but then the patient will be apprised of it by the return of pain. M. Guérard does not believe this application adapted to cases in which the skin is removed. The pain is immediately relieved, no phlyctæna are developed, and the cuticle dries and finally falls off like parchment. It is well to observe that if the application has been made to an extensive surface, the compresses should be handled with forceps, for concentrated ammonia very rapidly vesicates the skin in the healthy state. The patient as well as dresser, should also avoid breathing the vapour, and the vessels used should be made either of tin or of earthenware, inasmuch as copper is readily acted upon by ammonia.

\*Aqua Ammonia, we presume.—*Trans.*



The use of ammonia in burns is not new. Physicians have long since observed that it prevents in such cases the developement of inflammation. It has been seen, however, that it is especially for burns of small extent, and in which the skin is not excoriated, that M. Guérard advises the use of this caustic. Thus far we see no objection to recommending its trial to practitioners. As to burns involving a large surface, it requires more circumspection. There are efficacious means in more common use, such as the oleo-calcareous liniment and carded cotton, prolonged cold baths and fomentations with iced water. There is at this time a case at the "*Hospital St. Louis*," in which the most happy results have been obtained with cold water.—Translated from Journ. des Conn. Méd-Chir.—Bull. Gén. de Therap., April, 1847, for *Ibid*.

8. *Influence of Coffee upon the Sulphate of Quinine*.—According to the experiments of M. Dorvault, the sulphate of quinine, with the exception of a very small quantity, remains unchanged by the action of coffee. According to him, the disappearance of the bitter taste is due partly to the transformation of the portion of quinine which is dissolved into a tannate, and partly to the action of the other principles of coffee. M. D. thinks that it is only the dissolved portion of the sulphate which affects the organ of taste, and that this is decomposed by the tannin of the coffee, whilst the undissolved portions of the sulphate of quinine remain unchanged.

Sulphate of quinine dissolved by the aid of sulphuric acid or alcohol, loses but very little of its bitterness by admixture with coffee. Experience appears to have established the fact that the medicinal properties of the sulphate of quinine are not impaired by the action of coffee.

M. D. recommends the following formula for the administration of "*quininized coffee*,"

R. Coffee, parched and ground,	10 parts.
Boiling water,	100 "

Treat by displacement, filter and add sulphate of quinine 1 part and sugar 15 parts.—Translated from Bul. Gén. de Therap., April, 1847, for *Ibid*.

9. *Means of ascertaining if Alcohol be perfectly pure*.—M. Cassoria employs the anhydrous sulphate of copper to determine if alcohol contains any water. The salt will remain white, if put in anhydrous alcohol in a well stopped

bottle, but will become blue if the alcohol contains any water.—Translated from Journ. de Pharm.—Bulletin Gén. de Therap, for *Ibid*

10. *Method of detecting the presence of Cotton in Linen.*—M. Kindt, a Bohemian apothecary proposes to detect the presence of cotton in linen, by a process based upon the principal that the fibre of cotton is more rapidly dissolved in concentrated sulphuric acid than that of either hemp or flax. The cloth having been thoroughly deprived of its dressing by being boiled some time in water, should be well dried. One end of the piece should then be plunged in concentrated sulphuric acid, and left in it from one to two minutes. The cloth becomes transparent, and should be well washed in water, rubbing it with the fingers, if necessary, to favor the removal of the gummy matter which has been produced. It should now be rinsed in water holding in solution a small quantity of potash or other alkaline substance to neutralize any acid it may still contain, and again in pure water, and finally dried. If the cloth contains any cotton this will have been dissolved, and its absence may be readily detected by comparing the portion subjected to the acid with that which was not.

If the specimen were allowed to remain too long in the sulphuric acid, the linen fibres would be acted upon, but if the cloth were made entirely of flax the corrosion would be uniform. The cotton however is always first acted upon, and is converted into gum whilst the linen threads still remain white and opaque.—Translated from Journ. de Pharm., 1847.—Bull. Gen. Therap., for *Ibid*.

11. *Sketches and Illustrations of Medical Quackery. Homœopathy.*—The following case of administering powerful drugs in large doses under the guise of homœopathy, is noticed in the *Medical Gazette* as having recently occurred in London:—

“A lady who had been attended by a highly respectable general practitioner, recently consulted a homœopathic physician, who has acquired some celebrity in the fashionable quarter of the metropolis, for his skill in treating and *curing* diseases by infinitely small doses. She received from him four small white powders, with explicit directions, (now lying before us,) one to be taken every other night,—each powder being numbered, and the night on which it was to be taken, as well as the mode of taking it, being particularly specified,—‘all dry on the tongue.’ No. 1 was swallow-



ed according to order, and the patient was soon afterwards seized with great sleepiness, stupor, and other alarming symptoms indicative of the action of a powerful narcotic. These effects were followed by diarrhœa. The patient was alarmed, and instead of looking upon the result as an indication of the beneficial working of homœopathic powders, or as a means of curing her of any latent skepticism respecting the efficacy of infinitely small doses, she was prudent enough to return to her old medical friend, to whom she handed the remaining powders, with the directions. This gentleman, suspecting that they contained some active narcotic, caused them to be submitted to a chemical analysis. We have now the report of this analysis before us, and of it we shall make the following abridgment. The powders were numbered 2, 3, and 4. They were *similar in appearance* except that No. 3 was somewhat whiter than the other two: there was nothing to indicate that they were of different composition; and as they were to be taken in the same way on alternate nights, this could not possibly be suspected.

“Although there was no great dissimilarity in bulk, the powders were very unequal in weight. No. 2 weighed 3·4 grains; No. 3, 1·5 grains; No. 4, 2 grains. No. 2 was found, upon analysis to consist entirely of calomel and *morphia*, the *morphia* forming not less than *one grain*. No. 3 contained no *morphia* or calomel, nor any mineral or other substance, but merely *sugar of milk*. No. 4 was composed of calomel and *morphia*, the *morphia* amounting to one half grain.”—*Prov. Med. & Surg. Jour.*, Aug. 25. in *Med. News*.

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12. *On Etherization*.—Since we last noticed this subject, although the inhalation of ether has been practiced to a great extent, much of the enthusiasm which at first prevailed respecting it has been dissipated. The occasional unpleasant, and in a few instances even fatal effects which have resulted from its use, have caused a salutary check to the extravagant anticipations which were formed with regard to it. Further experience only can enable us to form correct notions of those circumstances which may render its application warrantable. In the meantime it is our intention to give a short summary of the novel facts which have been elicited in connection with etherization during the past month.

*Apparatus and mode of inhalation*.—The forms of apparatus invented for inhaling ether are already endless. The desideratum at present is to render them cheap and porta-

ble, without destroying their efficiency. The apparatus employed by Professor Simpson completely answers these purposes. (See our report of the Med. Chir. Society, March 3d.) Experience has shown that the inhalation should be so conducted as to produce its full effect as soon as possible, in order to prevent or shorten the period of excitement. With this view a large volume of vapor should be inhaled from the first, the individual should not be disturbed, or the inhalation interrupted, and the ether should be pure.

It has been proved experimentally by Mr. Young, cutler, Edinburgh, on his own person, before the Society of Arts, that so far from their being any danger of explosion during the inhalation, that flame applied to the mouth and breathed upon, is immediately extinguished.

*Physiological Effects.*—Numerous experiments have been performed on the lower animals by MM. Flourens, Serres, Gruby, Longet, Magendie and others. The same phenomena have for the most part been observed in them as in man. Stupor by ether constitutes a convenient mode of depriving animals of sensation, for experiments on the excitatory system. If pushed too far, however, even this is affected, and death is occasioned. Different degrees of insensibility may be produced, and an action upon the brain proper alone, or combined with this upon the medulla oblongata, and spinal chord, be occasioned according to the extent to which inhalation is carried. According to M. Flourens, ether acts on the nervous centres in the following order:—First, on the cerebral hemisphere; second, on the cerebellum; third, on the spinal chord; lastly on the medulla oblongata, destroying successively intelligence, regular movements, sensibility, and life. Dr. Buchanan of Glasgow, having pointed out that the blood surcharged with ether is sent directly to the heart and brain, explains the evanescence of its action by comparatively pure blood from the lower regions of the body, succeeding it as soon as the inhalation is stopped. (Paper read to the Philosophical Society of Glasgow.) The peculiar sensations experienced by individuals vary considerably in different cases.

*Applications.*—The removal of pain during surgical operations still constitutes the chief object of inhalation. Even this application of it, however, has caused perhaps less sensation than that of destroying the pains of childbirth, without interfering with the progress of labor. This fact, first ascertained by Professor Simpson, of Edinburgh, has been



confirmed by Professor Paul Dubois, of Paris, and subsequently by several others.\*

We are informed by Dr. Simpson that latterly he has ascertained two important points with regard to the use of ether in midwifery. First, its action may be kept up for hours. In one case he had a patient placed for four, and in another for five hours and a half, under its influence before the child was born. When the patients awoke about thirty or forty minutes after delivery, they were quite unconscious of the birth of their infants, and could scarcely at first be persuaded of the happy result. Both labors had been previously exceedingly tedious. One of the patients had child's head arrested at the brim, and after being above thirty-six hours in labor, was delivered by Dr. S. with the long forceps. Second, the fœtus in utero seems not to be deleteriously affected by even such prolonged etherization of the mother. In these two cases the action of the fœtal heart was carefully watched by Dr. S. with the stethoscope, and did not vary above ten or fifteen beats during the whole time of the etherization. Both children were born alive and well.

Ethereal inhalation has also been tried in several cases of facial neuralgia, inducing insensibility to the painful paroxysms, and sleep which could not otherwise have been produced.

Another application has been made by M. Baudens to determine true from feigned diseases in the army. In one case where curvature of the back was simulated, the deformity disappeared during the insensibility caused by ether, and the individual was led to confess the imposture. In another case, a suspected ankylosis of the hip-joint was in the same way proved to be a reality.

*Inconvenient effects* have frequently resulted from the inhalation. Many of these will be found related by Professor Syme and Dr. Roberts, in our report of the meetings of the Medico-Chirurgical Society of Edinburgh. Great excitement, cough with expectoration of pus, hemoptysis, and convulsions, during the inhalation, have been witnessed by ourselves. In some cases, erratic feelings, and even nymphomania, have been occasioned in females, in others hysterical symptoms, or those of depression or intense headache, which have continued several days. In our last

\*We observe that the paper of Professor Simpson, which we made great exertions to publish in our last number, has been translated entire in the *Union Medicale*, but we regret to say, without any acknowledgment of the source from whence it was originally derived.

number we noticed the occasional occurrence of alarming sinking which required vigorous measures to restore the individual. In some cases the individuals have been thrown into such a state of agitation as to render the performance of the operation impossible.

*Fatal Effects* have become multiplied. In our last number, one fatal case was noticed, occurring in the Edinburgh Royal Infirmary. We are informed that there are just now two other cases in which the ether was given, dying of secondary purulent deposits in the same institution.\* Is this result the effect of ether? An answer in the affirmative cannot be decidedly given, but, as we previously stated, all such cases require to be put on record. M. Jobert has brought forward two cases in which he considered death to be partly dependent on the ether. M. Roux has given another of tetanus, in which the patient never rallied from the stupefaction, and where death was decidedly accelerated by it. Mr. Nunn, of Colchester, has recorded a case of lithotomy, which sank without the patient having rallied from the operation; and Dr. MacLagan has mentioned another, occurring in London after amputation of the thigh.

We observe in the *Times*, an account of an inquest at Grantham, in the county of Lincoln, in a case where an osteo-sarcomatous tumor was removed by Mr. Robbs, surgeon, under the influence of ether. The patient never rallied from the operation, which was in no way severe or prolonged, and the jury found, "That the deceased, Ann Parkinson, died from the effects of vapor of ether, inhaled by her for the purpose of alleviating pain during the removal of a tumor from her left thigh, and not from the effect of the operation, or from any other cause." In the correctness of this verdict the surgeon himself, Mr. Robbs, concurred.

*Morbid Appearances.*—The morbid appearances which have been found after death, caused by ether in animals, are similar to those observed in asphyxia, namely, fluidity of the blood, its collection in the right side of the heart and large veins, and engorgement of the internal viscera. In the fatal case in the Royal Infirmary there was found double pneumonia, bronchitis, and secondary purulent deposits in the joints. In the case of Mr. Munn, cerebral congestion, lungs engorged posteriorly, and uniform fluidity of the blood. In the case at Grantham there was no great congestion, but the blood was fluid throughout. The observa-

\*One of these has since expired.



tions of Amussat and Lassaigue have shown that in every case the blood loses its power of coagulation, although with the exception of the presence of a minute dose of ether, its chemical principles are unchanged.

*Claims to the Discovery.*—The merit of discovering the application of etherization to removing pain in surgical operations, has been lately claimed by Dr. Wells, of America. He states that he was led to the discovery by observing that individuals when in a state of great excitement, as during battle, or intoxication, never felt the pain of local injuries. He consequently caused the patient to inhale ether, and nitrous oxide gas in several cases, and found that they were thus insensible to the pain of surgical operations. He was led to prefer the nitrous oxide gas for this purpose, from its causing less injurious effects than ether. He communicated his discovery to Drs. Morton and Jackson, who then received it with incredulity. He shortly after left America for Europe, and was much surprised on arriving at Paris to find that those gentlemen had propagated his ideas without any allusion to him.

Since writing the above we have been informed that Professor Syme has abandoned the use of ether in his surgical clinic.—*Lond. and Ed. Monthly Jour.*, for April, 1847. in *New York Jour. Med.*

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*On Etherization.*—In our historical notices of the effects resulting from the use of ether, we have endeavored merely to record the facts as they arise. It would seem, however, that the article in our last number has led to some misapprehension. In alluding to the alleged fatal effects of this substance, we thought we had been sufficiently cautious. It was asked, "Is this result the effect of ether? an answer in the affirmative cannot be decidedly given, but all such cases require to be put on record." We continue to be of the same opinion, and shall put on record all the fatal cases that occur *after* the employment of ether, being satisfied that it is of the utmost consequence to ascertain whether it be innocuous or occasionally dangerous, and in the latter case, what are the contra-indications to its employment. A correct judgment can only be formed by further experience and multiplied observations. We deprecate alike the excessive enthusiasm which insists that under no possible circumstances, ether can be, or ever has been prejudicial, and the unreasonable timidity which prevents the employment of a useful agent, because in a few cases, injurious effects have been apparently occasioned by it.

During the past month Etherization has been extensively practised, but few novelties have been published with respect to it. Its advantages and applications are still debated at the meetings of the Academy of Sciences and the Academy of Medicine in Paris. We observe, however, that the cases noticed in our last number have produced an effect on the warmest advocates of inhalation. Even MM. Velpeau and Roux, though still maintaining its great advantages, now speak of the necessity of caution in its use. This is as it should be.

The third case to which we alluded, as likely to be fatal *after* the use of the ether, in the Royal Infirmary, has since expired. It was a case of tibio-tarsal amputation, under the care of Mr. Syme. A girl, aged 14, of good general health, was affected with caries of the tarsal bones, and fistulous openings leading from them. The amputation was performed in the usual manner on the 24th of February, without the slightest pain, the ether having produced its full effect. She died April 5. On dissection the blood was found unusually fluid, and secondary purulent deposits existed in the lungs, left kidney, right knee, and left hip-joint. Such are the *facts*. As to whether death in this, or the other two Infirmary cases, resulted from etherization, that is a matter of *opinion*. Some say no, others yes. It is the first fatal case of tarsal amputation which has occurred in Mr. Syme's practice, and it is only right to state that in his opinion it is attributable to the ether. The observation of other cases will sooner or later decide the point.

*Applications.*—In the case of a young man, aged 23 years, subject for some years to epileptic attacks, which returned every 15 days, M. de Rabodanges caused ether to be inhaled, the evening before the day on which the attack was expected, with the result of preventing it.—(*L'Union Medicale* No. 42.) M. Mare Dupuy has injected large doses of ether into the rectum of two dogs, and found that in this way it will cause perfect loss of sensation. Slight inflammation of the mucous membrane was produced in one case. (*Ibid* No. 24.) M. Stolz, of Strasburg, has published a case of turning, in which he met with considerable resistance, in endeavoring to pass his hand into the uterus, notwithstanding the complete insensibility of the patient, by means of ether. He concludes from it that ether in no way facilitates the turning or extraction of the foetus.—(*Gazette Med. de Strasbourgh*, Mars 1847.)—*Monthly Jour. of Med. Science.* (July.)



13. *Croup*.—Dr. Blakeman of New York, in two cases of Croup, cauterized the Larynx with a solution of Nitrate of Silver. In the first case, “a child was two years old, very fat and large of his age, and of leuco-phlegmatic temperament;” the symptoms were well marked, the “skin hot and dry, pulse quick, great restlessness, laborious breathing, and the hoarse barking or crowing sound peculiar to Croup.” Emetics were freely given, and active vomiting ensued, but none of “the peculiar heavy glairy substance, which is the secretion of this specific inflammation,” was ejected. Copious discharges from the bowels were meanwhile obtained by the calomel which had been administered, but “the remedies having done no good, and the symptoms of suffocation becoming alarming, it was resolved to try the effect of cauterizing the larynx with a sol. Nit. Arg. ʒj to ʒj of water. The application was somewhat difficult, and the dyspnoea very great. A quantity of the thick tenacious substance was brought away by the sponge, &c., and a large quantity by the vomiting which followed. Ten minutes afterwards the operation was repeated with similar effects, and the disease appeared to be arrested. Five and a half hours after the first application, he “had improved in all the symptoms: breathing decidedly better, the barking sound heard only at intervals, and he had asked for drink;” the sponge was again used, and with similar results: and, after the cessation of the subsequent vomiting, the child fell asleep. The following day a slight hoarseness remained, for which he required no further treatment. In the second case, a boy six years old, in whom the febrile symptoms were well marked, Dr. B. “determined that the remedy used last in the former case, should be the first in this, and made two applications of the sponge, with a solution of the same strength as before employed. Some tough phlegm came away on the sponge, and free vomiting followed, which relieved the patient so that he fell asleep.”—*N. Y. Med. & Surg. Reporter*.

In connection with these cases, it may be mentioned that Dr. Linsly, of New York, has successfully used fumigations with Cinnabar in several cases of Diphtherite. —*Wood's Quarterly Retrospect*.

14. *Croup*.—The following “Observations on Croup,” from the pen of Dr. A. H. Stevens, the learned President of the College of Physicians and Surgeons in New York, will be interesting to those who value practical and acute remarks in relation to this formidable disease. After as-

cribing to Dr. Bayley, of New York, the first correct pathological notions of this malady, and showing how little that is truly valuable to the American physician, respecting Croup, is to be found in European publications, more especially among continental writers, he says:

“The forms under which Croup has presented itself to my observation in this city, during a period of more than thirty years, are the following:

“1. A child with coryza and occasional cough of the ordinary character, as in bronchitis, is playing about without sore throat, or redness of the fauces, or glandular swelling. He appears more than usually animated, his countenance, especially his eye, is unusually bright, and his mind exhilarated. His skin at this time is not heated during the day, but rather harsh to the feel and drier than natural. To an acute observer with a nice ear, his voice will be a little sharper than usual, and if he cries for a time, the peculiar respiration will excite alarm. On the second or third night the attack of Croup commonly comes on after a few hour's sleep; the symptoms being a ringing cough, hoarse inspiration, and great roughness of voice. If the patient dies, a membranous formation is found in the trachea and more or less in the bronchial tubes. This is what all admit to be genuine inflammatory Croup.

“2. Without any noticeable illness whatever, a child suddenly wakes up in the night with spasmodic suffocating cough of the peculiar croupy sound, the same inspiration as in the former case, and the same hoarseness of voice. A drink of some kind is given; the next cough is less sonorous, but the croupy symptoms as before described remain. The case is usually relieved by an emetic and some stimulating application to the throat, both of which are kept for that purpose in almost every well-regulated family in the city, where there are many children under eight years of age. If not so relieved, the patient may die within twenty-four hours or less, or after a lapse of two or three days, or even a week. Where the disease terminates quickly in death, no well-formed false membrane is seen, but only mucus in the trachea more or less thick, and redness about the glottis. This is the form to which the term spasmodic Croup has been given. Spasm of what? Of the glottis undoubtedly. And from what cause? From the presence of vitiated secretions, and undigested, decomposed food in the stomach, it is answered. And how does this act? By sympathy? Now, this cannot either be proved or even rendered probable. It is true, when the stomach empties



itself by vomiting, the symptoms, for a time at least, and often permanently are relieved, but vomiting does more than unload the stomach. It relaxes the system, reduces the action of the heart, determines the fluids to the skin, which possesses so remarkable an antagonism to the mucous surfaces—above all, induces a copious secretion from the fauces, and thereby unloads the congested vessels of the glottis. It is admitted that an acid state of the stomach often causes irritation in the pharynx, which thence extends to the posterior part of the upper portion of the larynx. In adults this is beyond all doubt, and in children it is every way probable. Is the impression of these acrid matters, eructated from the stomach or secreted in the pharynx, under particular circumstances upon the larynx, the cause of the sudden occurrence of Croup? It would be difficult absolutely to disprove these propositions. In my mind they are not improbable. But, on the other hand, admitting the connection between disordered stomach and Croup, established as it is by the most extended observation, may it not be attributable, in part at least, to the fact that continued coldness of the surface is precisely the condition which fits the system, as well in childhood as in age, for the action of cold and moisture in producing inflammatory diseases?

“But, setting aside these considerations, and under any view of the subject, what is the morbid condition of the glottis which gives rise to the croupy symptoms? If from cold, it is inflammation; if from acrid secretions acting for more than a few minutes, it is and can be nothing else. There is, therefore, no spasmodic Croup, if by spasm it is intended to exclude inflammation as a cause of that spasm.

“But I am asked again, how are the two kinds of Croup above described to be explained pathologically? The answer to this query will appear in the classification of the forms of Croup now proposed.

“Under the term Croup, properly so called, are included two affections, which may exist either separately or together.

“1. The *cynanche trachealis* or trachitis, in which membranous exudation is more or less formed in the trachea before any affection of the larynx and more especially of the glottis, takes place.

“2. The *cynanche laryngea* or laryngitis or glottitis, in which the laryngeal or spasmodic symptoms occur first or exteriorly.

“3. Between these two there are varieties of combination, and these constitute the great majority of the cases

met with in actual practice. In the most pure case of the so-called spasmodic Croup, no practitioner can say beforehand that no fatal inflammation of the glottis will occur, or that no obstruction of the trachea by false membrane or solid mucus is to be apprehended.

“Is the disease Croup a specific disease? Is there any peculiarity in the inflammation that gives rise to that secretion in the trachea? Let us look to anatomy, and physiology, and the observation of disease, and to dissections for answers to this question.

“In the first place, between the most firm tubular form of false membrane, and inspissated mucus, and mucus of an ordinary consistence, we see in dissection of Croup every grade and variety. If specific, its character should be more marked.

“When a child attempts to swallow hot water, the membranous exudation is produced in the posterior fauces and upper part of the larynx. Here then is an ordinary cause of inflammation producing what some consider a peculiar and specific secretion.

“This question has a bearing upon practice, because it is contended by some that the specific effect of mercury is the proper remedy for this specific secretion.

“It remains for those who deny the specific character of the tracheal secretion to account for its existence there, rather than in the larynx and trachea. In the larynx it is more rarely met with, in the trachea it gradually becomes less tenacious, and more resembles ordinary inspissated mucus. May it not be merely inspissated mucus in all cases? mucus inspissated by rapid desiccation? If a portion of the mucus is left in the trachea, the increased rapidity of respiration, and the narrow calibre of the tube, must necessarily remove its watery particles in a doubly augmented ratio; less so in the trachea, because the same volume of air in proportion to the surface does not pass by, and the air also is more charged with the moisture in its previous passage through the trachea—less so in the larynx, because that tube is larger. Rarely is the membrane seen upon the glottis, because death arises from spasm ere it has time to form on that irritable part. Rarely in adults, because in them the trachea is double the size it is even in advanced childhood; and because they exert a stronger volition to detach by hawking the first tenacious mucus that is adherent to the trachea.

“The surface of the trachea is very unirritable. Where foreign bodies enter by accident, as when a tube is forced



into it by an artificial opening, no coughing is induced unless by its rising up the glottis is touched. A small foreign body has been known to remain for years, quietly lodged in one of the ventricles of the larynx. The trachea and the comparatively unirritable parts, are those in which inflammation may be going on for a considerable length of time, without exciting any very marked symptoms. This constitutes the true explanation of the two modes of invasion in Croup.

“Besides these three forms of idopathic, primary or true Croup, the laryngeal, the tracheal, and the mixed—there are forms of secondary Croup, such as occur in measles, scarlet fever, and more especially in the malignant ulcerated sore throat, the diphtherite, of Bretonneau. This last occasionally occurs sporadically with us, and is, I apprehend, very generally the disease which, under the term Croup, carries off in quick succession, two or more children in the same family. I have treated it successfully with calomel and opium, followed by wine whey, in conjunction with nitrate of silver to the throat—but my experience is too limited for me to assume to instruct others in regard to its nature and treatment. The French writers do not appear to discriminate between this affection and Croup, as known here and in Great Britain.

“Before speaking of the proper medical treatment, I will say a few words on a point of Hygiene.

“1st. What is the best method of bringing up children, with a view to their exemption from this disease?

“Two systems are adopted for this purpose—one is to allow free exposure and exercise in the open air, except in the very worst weather. The children being well guarded with warm clothing, are not suffered to cease their exercise until they re-enter the house. The second is to confine them within doors, during the whole winter, and the early part of the spring. My observation leads me to think that although the first plan, if it is followed with great care, is the best, yet the second is more easily pursued, and upon the whole is the safest.

“2d. Under what circumstances should especial precautions be taken, with a view to ward off the attack?

“A child between the ages of two and five years with catarrh and cough, however slight and unfrequent, is a fit subject for Croup, and if that disease is prevailing at the time, an attack after any exposure to cold and moisture, or any excess in eating is always probable. The child should be confined to the house and dieted.

“The treatment of Croup should be prompt and decided, for if left to itself, the disease would probably in general prove fatal. But although prompt and decided treatment is necessary, it does not follow that heroic treatment is always, or even generally required. But the existing symptoms must always be met by remedies adequate to subdue them. The great skill of an experienced practitioner is shown in determining what amount of active treatment is *essential* in any given case; how much is requisite to remove the threatening symptoms, and to induce a favorable change, and how soon he must recur to the more severe remedies, after the disease had been for a time moderated. —*N. Y. Annalist*, in *Wood's Quarterly Retrospect*.

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15. *Gastric Origen of Croup*.—Dr. Cain enters into a lengthened discussion to prove that “inflammation of the mucous membrane of the trachea and larynx, is sometimes caused by crudities in the stomach,” adducing in support of his opinion in regard to croup, one case in which an attack supervened on a quantity of indigestible food having been taken into the stomach. He says Dr. Dickson, of South Carolina, is the only author, so far as he is aware, who has mentioned the connection of croup with the presence of indigestible substances. This opinion is so universally entertained by practitioners (although no written expression may have met Dr. C's eye), that no extended argument seems necessary to elucidate it. Dr. C's article is to be found in the *Southern Journal of Medicine and Pharmacy*. —*Wood's Quarterly Retrospect*.

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16. *Medical Heroism*.—There are few of our readers who do not remember the melancholy impression, made on the public mind by the disastrous expedition to the Niger when this was made known in England, through the newspapers. And none who remember this, can forget that pathetic passage in the story, which represented the noble conduct of the surgeon and the geologist of the expedition, when left alone in the far recesses of the Niger, amid their heroic companions, all stricken to death, or to death-like helplessness, by the fatal fever of the country. In this trying conjuncture, when the salvation of all on board depended upon the speedy removal of the ship from her actual position, Dr. M'William took the navigation on himself, steering with his own hands, and piloting the vessel through all the intricacies of the river, while his companion worked the engine below. There is something affecting, we had almost said,



sublime, in the picture thus presented to the imagination, of these two solitary men of science, assuming offices so foreign to their past habits and knowledge, stripped of all exterior cognizance of their class, standing as humble workmen at the helm and furnace, toiling by day, watching by night, while the force of the stream and paddles was sweeping their ill-fated bark, freighted with their dying or dead companions through the manifold dangers of their unknown course. The author of the volume before us, (the Report on the Boa Vista Fever,) was the clear-headed and stout-hearted pilot who did this, the undoubted preserver of the ship and her surviving crew; and the slight and simple way in which he speaks of his own exertion, strikingly illustrates the old truth, that "the brave man is ever modest."—*Brit. and For. Med. Review.*

What an entertaining book might be written upon "Medical Heroism!"—never more strikingly displayed than by the medical man in the battle, in the tempest, and in the pestilence, when neither reward nor glory is to be won, and philanthropy and duty alone prompt the exposure of a life, whose toils and sacrifices are to be so speedily forgotten. Such a work might do much towards obtaining a higher respect for the claims upon the public of our ill-requited profession.—*Annalist.*

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17. *The Fate of the Physician.*—"Another physician, DR. D. B. HALL, died yesterday—this is the fourth."—*New Orleans Paper.*

Such are the brief, cold terms in which the public are told that Medicine is offering up victim after victim, on the altar of professional duty.

Where are now the Hydropaths, Homœopaths, Root Doctors, and the whole legion of quacks? They are silent—they have probably fled, to seek in some place of safety for dupes and victims. And where are now the flippant sneerers at the uncertainty of medical science—"the Doctors' quarrels"—"the Doctors' bills"—"the Doctors' rapacity?" Silent all! no voice is heard to breathe a word of reproach or ridicule. No! no! the talk now is, "Our physicians are laboring, dying? Such is ever the fate of Medicine and medical men. In the hour of suffering, or of danger, they are sought out with eager zeal and rewarded with garrulous gratitude; but let that hour pass, and the danger, and he whose skill averted it—the suffering, and he whose toil made it tolerable—are alike forgotten, and the public turn from their long-tried physician, and give the reward

which he has so dearly earned, to the ignorance, the impudence of the nostrum-vender, or the new-system-men.

And what is our duty when thus treated? *Go onward! Look upward!* Go onward! the path of duty is before you. Look upward! the reward is on high.—*Ibid.*

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18. *A Mode of Resuscitating Patients after Inhaling the Vapor of Ether.*—Sir,—For the last week I have been using, as a means of resuscitating patients, after inhaling the vapor of ether, pure oxygen gas, with the most perfect success. To-day, I operated in nine cases on the teeth: to each patient I gave a full dose of the ether vapor, and subsequently a few inhalations of oxygen. In not one case did the patient complain of debility, and all recovered perfectly in less than a minute and a half, timed by the medical men present. I will, by your permission, in a future number of your journal, furnish the details of these and other experiments with oxygen. I remain, &c.

JAMES ROBINSON.

Gower Street, Bedford Square, March, 1847.—*Lancet.*

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19. *On the Use of Muriate of Morphine in Toothache, Frontal Neuralgia, and Neuralgia of the Fifth Pair of Nerves.*—M. Ebrard has always found toothache yield, in from half an hour to two hours, after friction of the gum on the affected side with muriate of morphine in powder. The first friction should be performed in the evening, at least three hours after the last meal, unless the severity of the pain prohibits delay. The patient should take a quarter of a grain of the salt on one of the fingers, previously moistened; rub it gently on the gum for about three minutes, then incline the head towards the affected side, avoid spitting or swallowing the saliva. so as to favor the contact of the salt with the affected part, and maintain this position for at least ten minutes. This process should be repeated in two hours if relief is not obtained. Should the pain return the day following, the application should be repeated. Half or three-quarters of a grain of the salt may be employed if necessary. The friction should not be repeated if headache, disposition to sleep, etc., occur.—*N. Y. Jour. of Med.*

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20. *Rape perpetrated on a Female while under the Influence of Ether.*—That which had been suspected as a probable result, on the introduction of the new narcotizing agent, has, according to the *Gazette Medicale*, actually occurred in Paris. A young woman went to a dentist to have a



tooth extracted. To avoid the pain, she was persuaded to inhale the vapor of ether. While under its influence she was violated. The dentist has been arrested.—*Med. News*.

21. *Anecdote of an Insane Clergyman before the American Revolution.*—At one of the late Religious Anniversary Meetings in Boston, the *Rev. Dr. Pierce*, of Brookline, related an amusing anecdote of Samuel Coolridge, who graduated from Harvard University in 1724. At that time, it was customary, on the death of a king, or any of the royal family, for the clergy to preach a funeral sermon. Mr. Coolridge, who was a man of fine abilities, wrote a sermon, and became so deeply interested in the matter, as to become insane. His insanity was harmless however, and exhibited itself in a desire to go round and visit the clergy. On one occasion, he visited the *Rev. Mr. Hedge*, of Warwick. The *Rev.* gentleman invited him to attend church with him. On passing through a field, he noticed Mr. Coolridge collecting some green apples and placing them in his bosom. He made no remark about it, however. Mr. Coolridge took a seat just beneath the pulpit. After Mr. Hedge had well advanced in his sermon, Mr. Coolridge observed a man asleep. He took an apple and threw it at him, but did not hit him, and no disturbance was created. A few moments after, he observed another man asleep, he again threw an apple; this hit the man plumbly on the head, and he aroused rather suddenly from his slumber. Mr. Hedge observing the manœuvre, and thinking to frown down all such conduct, looked sharply at Mr. Coolridge, but he, nothing abashed, looked up and said, "Go on with your business of preaching, Mr. H. and I will keep the people awake."—*Amer. Jour. of Insanity*.

22. *University of Pennsylvania.*—James B. Rogers, M.D., we are happy to announce, has been appointed professor of Chemistry in the Medical Department of this University. Prof. Rogers is an eloquent lecturer and accomplished chemist, and will well sustain the reputation of the school.—*Med. News and Library*.

23. *Medical College of Ohio.*—Dr. L. M. Lawson has been appointed professor of Materia Medica, Therapeutics and General Pathology in this school, and has accepted the appointment. He resigns his professorship in Transylvania University.—*Ibid*,

## PART V.—EDITORIAL.

## ARTICLE I.

## THE SYSTEM OF "CONCOURS."

A paragraph is going the rounds of the Medical Journals, quoted from the London Medical Gazette, to the effect that the "Chamber of Peers has come to a vote by which the system of Concours is abolished in France."

Not having before us any authentic account of this action we of course are not prepared to confirm or dispute the statement, but admitting its correctness there is no good reason to apprehend that the popular branch of the government will concur and vote its discontinuance.

We might express our surprise that independent journalists in this country should be found to applaud such a retrograde movement of a legislative body, constituted like the French Chamber of Peers. The "laws of September" against the liberty of the press, of speech, and of thought, the incarceration of editors, and liberal writers, and similar acts which it would be out of place to enumerate here, have been for seventeen years the principal work of that servile branch of a corrupt government. But after all the restraints imposed upon men of independent minds there still remained a career by which they might without government patronage, and often in opposition to government candidates, rise to eminence. It was by the public trials in all the different departments of the University, and thus interfering with this in any degree, was an act worthy to follow the antecedents of such a Chamber. If something liberal had been adopted in its stead there might be some excuse, but as it restores all the appointments to the ministry, and places them upon the same footing as others of a political nature, it is strange indeed that it should find advocates with us,



The editor of the Buffalo Medical Journal in commenting upon the vote above alluded to, states some objections to the system, which are founded in a great measure upon a misapprehension of its true character.

He seems to think it supercedes all other evidence of merit; whereas it is used in addition to those at present employed in this country. He objects that the judges might be subject to improper influences, but the same objection applies to a trial by jury. No one supposes that while men are the judges, theoretical perfection in a system can be attained, but this gives what we have not at present, a fair trial before impartial judges in public, and guarantees a good if not the best selection.

He supposes that an incumbent thus selected must hold the place for life, but this would not necessarily follow if he should neglect his duties.

This system has been attended with the most brilliant and satisfactory results. It has gathered at Paris the talent of many countries. Orfila from Spain, Dumas from Switzerland, and Ricord from America, are but specimens of what it has done for France. A mere enumeration of the members of the faculty of the School of Medicine would be a sufficient proof of its excellence. There is an objection to its introduction which we confess to have scarcely expected to meet with. It is in substance, that there is no occasion for it, the present state of things being good enough.

We have no disposition to undervalue the qualifications of the professors in our medical schools, but under the present system they have not all the advantages they might possess for arriving at the highest degree of excellence. They commence teaching for the most part late in life, without experience in speaking or any studies directed especially to qualify them for the task of instruction.

Look for a moment at our medical literature. Are not nearly all the books published foreign, with notes by the "American editor"? Are not a large proportion of the medical journals circulated among us from Europe? Can

they describe correctly the diseases of this country? And what a state of the profession do these facts show?

The call for the reform has been heard from every quarter of the country, and it is worthy of being remarked, that it came from the societies and not from the schools, and that these latter are regarded as to a certain extent as separated from the mass of the profession. This feeling will grow unless medical institutions are greatly reformed.

Having had an opportunity of witnessing personally the operation of the system of concours, it appeared to us admirable and peculiarly adapted to the character and spirit of our institutions, and if for political reasons it should be discontinued in France it would only be necessary for the leading schools in this country to adopt it, and students will soon flock to them from every country, instead of as at present seeking instruction abroad.

Since writing the above we find the following in the *Annalist* which will give more light upon this interesting subject.

*“To the Editor of the Annalist, Sir:—*In a very recent number of your journal, I noticed, with much surprise, an article headed “The Concours abolished in France,” in which it is positively asserted that this institution—regarded in France as the bulwark of safety to the profession—“is now formally, and as may be fairly concluded, “forever abolished;” and, as I happen to be “among the number of your brethren who have lauded this method of filling vacancies, &c.,” and hope yet to see it generally introduced into this country, I ask leave to present a few *facts* in connection with the subject, in order to counteract the erroneous impression that your article is calculated to convey, of the method having been tried abroad and abandoned, as imperfect and insufficient.

“The truth is that the Concours *has not been abolished in France*; and in so far as I am informed on the subject, no attempt has been made to interfere with it except in the case of appointments to full Professorships. When the new Medical Bill was introduced into the Chamber of Peers, it was proposed that in lieu of the Concours, appointments to professorships in the principal Medical Colleges should be made “by presentation,” as it is called;



i. e., the names of a certain number of persons should be presented by various scientific bodies, (the faculty in which the vacancy occurred, the Academy of Sciences, and the Royal Academy of Medicine,) to the government, and the selection and appointment were to be made by the Minister of Public Instruction. This was a government modification of the bill, and intended, it is asserted, to secure additional patronage. Previously to introducing the amendment, the Minister requested the opinion of the faculties of Paris, Montpellier and Strasbourg, the only bodies in France empowered to grant medical degrees, and they all objected in the strongest terms to the proposed change. The vote on the question in the Paris faculty stood thus: *against the proposition*: MM. Orfila, Marjolin, Richard, Piorry, Bouillard, Bérard, Gerdy, Blandin, Roux, Velpeau, Denouvilliers, Dumeril, and Cloquet—13; *in favor of the change*: MM. Andral, Chomel, and Fouquier—only 3—and as two of these are attached to the royal family, and the third received his present chair through the Minister, and not by the Concours, it might naturally be expected that they would favor the views of the government.\* Thus the vote may be considered unanimous in favor of maintaining the existing order of things in relation to this subject.

“Notwithstanding this opposition of the Professors themselves, and almost the whole body of the medical press, the minister adhered to his determination; and, supported by MM. Cousin and Thénard, the bill passed through the Chamber of Peers. It has not yet been acted upon, however, by the Chamber of Deputies; and as that body is less directly under the influence of the government, and numbers among its members, Monsieur Malgaigne, and other distinguished medical men, known to be advocates of the Concours, it remains to be seen whether this objectionable and unpopular feature will not be removed from the bill before it is allowed to become a law. Should it pass, however, it will, as I have already stated, apply only to the cases of full Professors, for the very first article of the bill contains all the directions required for carrying out the system of concours in other cases; and all adjunct Professors, Hospital Surgeons, Externes, Internes, and Apothecaries to the Hospitals, will continue to be chosen as heretofore.

“Thus you will perceive that the Concours, instead of being abandoned in France, is, after a long trial, fully recog-

\*M. Fouquier. is first Physician to the King; M. Chomel Physician to the Duchess of Orleans; and M. Andral did not concour, I am informed, for the place which he now occupies.

nized—in a reform medical bill too—as being the best test of merit, and admitted to be applicable to all appointments except those the patronage of which it may be desirable for a government to retain.

“My sole object in troubling you with the request that you will cause this letter to be inserted in an early number of your journal, is to correct the error into which you, in common with the Editor of the *Medical Examiner*, and other medical journals, have inadvertently fallen; in consequence, perhaps, of a false assertion in the *London Medical Gazette*, (quoted by the *Examiner*,) which journal appears, in this instance at least, to be rather more anxious to abuse the “French system,” than to adhere to truth in its statements.

“In a communication like the present, intended solely to correct an error of fact, I do not judge it expedient to enter into a discussion of the merits of the various plans pursued for filling vacancies in Medical Colleges; still, as an assertion is made in your article to the effect that the plan of electing *Lecturers* for a year possessess “many of the advantages of the Concours,” and “is entirely free from its objectionable features,” I cannot refrain from asking to be permitted to differ with your entirely on this question; and to object to the method on the ground that *without* its advantages, it embraces, what I conceive to be one of the very few imperfect features of the system which you condemn.

“With sentiments of esteem and regard, I remain

Respectfully yours,

F. CAMPBELL STEWART.

“640 Broadway, October 7, 1847.”

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## ARTICLE II.

### ON THE INHALATION OF SULPHURIC ETHER.

Some months since we gave an account of the use of ether for the prevention of pain during operations, and related some cases in which we had used it with advantage. We have since that time intended to present a summary of the observations made in different countries with the results and conclusions arrived at. But the universal approbation with which it was at first received has given place to doubt



and in some cases condemnation, and the reports of cases, opinions, successes, deaths, dissections, experiments, &c., have become so voluminous and varied, as to make us despair of giving even an analysis of their contents indicating the conclusions to which they tend; for while men of science and caution are deterred from its use by some fatal results attributable to its abuse, the patients cry out for it, and the bolder, perhaps less informed of the profession, continue to use it with almost universal success.

If instead of searching among recorded cases and opinions for evidences of its value, we were to take the results of our own experience and the observations we have been able to make upon its use by others as a guide, we should not only reiterate the favorable impression formerly expressed in regard to its value in preventing pain during operations, but add also that as an anadyne it may in a great number of cases supercede opium and as a febrifuge quinine and diaphoretics. Of many cases it has never but in a single instance produced ill effects, and those of the most evanescent kind, but it has produced results so excellent that we are constrained to believe it the most admirable of discoveries.

In order, however, to make this true of its use it is necessary that care should be taken not to give it in too long or too concentrated a form, or to exclude the atmospheric air from the lungs. The method of using it which experience has shown us to be most effectual and safe is, if the receiver be employed, to allow the patient to inhale it gradually for a length of time without closing the nostrils, if after a few minutes the effect is not produced, these may be stopped. As soon as indications of its effects are observed it should be suspended and given from time to time as long as there is occasion for its use. In some instances we have employed simply a sponge held over the mouth and nostrils and when only an anadyne effect for the relief of pain without operation a small one with little ether will do.

It is absolutely essential to its safety and success that *pure rectified sulphuric ether* should be employed, and none of this is found in the shops except where care has been taken to procure it. It is for this reason that many have failed. To these directions we would add that it is not to be given to persons who are extremely timid or averse to its use as

fear has an unfavorable effect, but the patient should be allowed to take it in his hands, inhale it gradually before hand, and if after such trials he is still averse to its use it should not be urged upon him. Usually after such inhalations, patients acquire confidence and find it agreeable.— Another rule is that it should never be given for an operation extremely slight, for it is unnecessary, nor in one where the patient is likely to die from its immediate effects as it might add to the danger and difficulty.

With such reservations we can safely recommend it. There are, however, states of the lungs, heart, and brain in which its use is thought not advisable.

Among these are tubercles and inflammation of the lungs and pleura. We do not, for ourselves, think these cases should altogether prohibit its use; on the contrary we suppose that it may prove useful in alleviating the dyspnea, attendant on such cases.

In valvular disease of the heart it has been thought dangerous; but we have known it to give great relief to asthmatic patients affected with such diseases.

“In persons of short necks and subject to congestion it should not be used.” We think there is no doubt of the correctness of this precept.

We have lately used it for the extirpation of two cancerous breasts, extirpation of tumors, opening of abscesses, strabismus &c., with the most satisfactory results.

It has also been used in the Chicago Hospital under the direction of a pupil of that establishment, Mr. J. W. Freer, in a case of painful menstruation with the happiest result.

Also in a case of superficial burn of a most painful character, in which the patient, a young woman, was allowed a bit of sponge and a small bottle of the ether during the night, and she inhaled it uninterruptedly for six hours without bad effect. On the contrary, when it was suspended too long the pain became intense, and she cried for it “like a child for milk.” But the most delightful of the results obtained by Mr. Freer have been in cases of ague. Two or three inhalations invariably arrested the paroxysm *instantaneously* during the cold stage, brought on diaphoresis, and in cases when there was no unusual exertion the paroxysms have not returned.

In labor it has been tried and various are the reports of its action. Prof. Herrick has used it once in a case of natural labor for half an hour with excellent effects. It took away the pain without in any degree interfering with the contraction of the uterus. D. B.



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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

*A Paper on the Pathology and Treatment of Fever.* Read before the Peoria District Medical Society, at their Fall Session, 1847. By A. G. HENRY, M. D., of Pekin, Ill., and ordered to be published in the Illinois and Indiana Medical and Surgical Journal.

The Pathology of Fever has been so often and so ably discussed, from the days of Hippocrates down to the present time, that nothing *new* can reasonably be expected from me on this occasion.

It may be said with truth, that almost every conceivable condition of the system has been referred to by learned Medical and Pathological writers, as the proximate cause of that morbid condition which we denominate Fever; and of the various systems which enter into the formation of the Animal Economy—each one in their turn have been referred to as being the first affected in the series of morbid derangements. The Profession generally, and especially gentlemen of this Society, are too well acquainted with the various theories that have been put forth to the world in relation to the Pathology of Fever, to render it necessary for me to allude to them in detail; consequently,

I shall occupy the time allowed me on this occasion, in setting forth, in as brief and comprehensive a manner as possible, the Pathology which I have adopted, upon which to base a *practice* which I claim to have been the first in the Medical World to introduce to the notice of the Profession. But while I claim to have *originated the practice*, I would not be understood as claiming any originality on the score of theory, for all the views which I shall advance at this time upon the Pathology of Fever, I am indebted for, to those bright and shining lights to whom the world is so much indebted for the amelioration of human suffering, and to none more than to the immortal Cullen and Sydenham.

It may be thought strange by some, but it is nevertheless true, that I am indebted to *my practice* and observation for anything like clear and satisfactory views of the Pathology of Fever, rather than to my *theories* for my practice. This may be regarded as unphilosophical, but to my mind, it is the only way by which real and substantial improvements can be made in the practice of the healing art. What is more in the way of the introduction of new curative agents in the treatment of disease, by the Profession, than is the peculiar theory which may have been imbibed by the practitioner, of the disease, and the *modus operandi* of the remedy proposed? If they condemn the practice, nothing short of ocular demonstration can induce a trial of the remedy; for no individual verbal authority can stand against the generally received opinions of the Faculty; and it is well that it is so as a general thing. But there should be exceptions to this rule. When the remedy comes recommended by responsible medical men, who have formed their opinions of its efficacy from actual observation, and in the absence of all countervailing testimony, coming from equally responsible sources, it does seem to us that they should so far be received with favor, as to induce a fair trial of them, without their authors being required to accompany them with a theory more satisfactory than any that may have been previously promulged. If this is required of me in the present instance, I greatly fear gentlemen of this Soci-



ety will never make a trial of my remedy. I am now satisfied, however, that I committed an error in presenting my new system of practice to the Profession, without some kind of a theory to support it, since the practice is in direct opposition to all the doctrines of the books, and contrary to the almost universal practice of the Profession.

I believe it may be said with truth, that all modern Pathologists agree that the Nervous System is the first to receive the impression of all those noxious influences that are supposed to act as remote or exciting causes in the production of fever. This, at least, is my doctrine. It is not my purpose to discuss the question of the relative importance of those insensible causes, which we call miasmatic influences, and the sensible causes, such as temperature, humidity, &c., in the production of the disease, but I content myself with the passing remark, that I attach far more importance to the latter than the former, for I am not disposed to look for *insensible* causes, when we have sensible ones enough to account for the phenomena.

If this, then, be true, it follows as a natural consequence, that the Nervous System is the first affected in the series of morbid derangements. This is most clearly proven in the first paroxysm of a common intermittent. The first thing complained of, is a general languor and debility dependent entirely upon functional derangement in this system. But let the paroxysms be repeated, and we have derangement in all the other systems. If we prevent a recurrence of the paroxysm by our quinine or other remedies, as a general thing, no sensible derangement is experienced in any other system—and my doctrine is, that quinine as a remedial agent in intermittents, acts directly upon the nervous centre. If it were not so, how shall we account for the fact, that it must be given until that peculiar effect is experienced in the head, on which it is conceded its periodic power is to be determined. If this effect is not produced, the paroxysm will return; and this fact is now becoming so well understood, that we regulate the quantity required in each individual case, by this effect—five grains

producing it in one case, while twenty may be required in another; but all we give after this ringing in the ear is produced, is worse than thrown away.

The Intermittent form of Fever, is, in point of fact, the only pure and unmixed form we have; all others partake more or less of other forms of disease. Here we have Fever in its purity, and here we also have Dr. Cullen's "spasm of the extreme vessels," most clearly exemplified.

In the Typhus form, as well as in all others, we have fever and inflammation combined, and which is entitled to the precedence, never has, and probably never will be, satisfactorily determined. We may have fever, says Dr. Thompson, without inflammation, but we can never have inflammation without fever. In all forms of this mixed disease, if the case proves fatal during the irritative stage of the inflammatory part of it, no trace is left behind for the Pathologist; but if they are long protracted cases, actual lesion is found, sometimes in the brain or spine, or both; sometimes in the stomach and bowels, and at other times in some other minor viscera—and these facts have led to interminable disputes as to the seat of the disease—which all goes to prove most conclusively to my mind, that all that class of disease denominated fever, have no other local habitation but in the nervous system. That learned and justly celebrated Pathologist, Broussais, contends that all fevers are nothing more nor less than cases of gastro-enteritis; but Dr. Clutterbreck denounces this doctrine, and contends most learnedly that they are all cases of inflammation of the membranes of the brain. Other locations have been contended for with equal ability, and in the West and South, in latter days, the palm has been awarded to that class of Pathologists who locate the disease in the liver, and the result has been, that in this region, that greatest and best of all remedies, except opium, when properly used, has been degraded as a nostrum in the hands of the regular faculty, to a level with lobelia and number-six, and done more to encourage empiricism than everything else besides.



All these various theories, in my opinion, have been more the productions of fancy than fact. The pathology which locates the disease in the brain, comes nearer the true doctrine than any other, for the reason that it comes nearer the nervous system than any other. But it comes no nearer, in point of fact, to locating the disease originally in the nervous system, than does the doctrine of Broussais, the only difference being in nearness of proximity to the nervous centre; and in the stage of irritation large doses of opium can be given with as much safety as when the inflammation is in any other part; and the remedy is more loudly called for, because of the greater danger of a fatal termination, if the disease be not arrested at the onset. The notion which so generally obtains among medical men, that opium cannot be given with safety, when the head is the seat of irritation, is, in my opinion, entirely erroneous. It is only when the irritation has produced inflammation that opium becomes inadmissible, *and this rule is just as applicable to affections of other parts, as to the brain.* The symptoms of coma which usually show themselves in the latter stages of fever, as a general thing, are the results of nervous exhaustion. In such cases, the only remedy to be relied upon with any degree of confidence, is full doses of opium.

Let us for a moment inquire what are the first symptoms which usher in an attack of fever? Are they not such as imply derangement in the nervous system? and is it not true that they continue some time before any other symptoms occur that indicate derangement in any other system? Does not the experience of every medical man testify, that one local affection after another follows the progress of fever, showing conclusively that they depend, or rather result from a continuance of the primary irritations in the system first affected. No one will contend that derangement in the secretory system is the first in the series, neither is it found in the heart or the arteries. They are both secondary affections, evidently caused by the continuance of the primary irritation, wherever you may please to locate it.

If this be true, what then are the indications of cure? Should they be remedies that act most directly upon the secondary affections? or should they not be directed to the original affection?

What do we do when called to a patient laboring under disease produced by swallowing poison? Why we at once remove the irritating matter from the stomach. Instead of adopting this course, suppose we should allow the irritating cause to remain in the stomach, and set about trying to arrest the progress of the inflammation? What would be the result? Why, the inflammation would be increased more rapidly than we could subdue by the most vigorous application of our remedies.

Now I contend that the same principle applies to the treatment of fever. If we overlook the irritation in the nervous system, and direct our remedies to the secondary affections, as a general thing, every symptom becomes aggravated hour after hour, until our patient dies, or until we produce in the system, a new disease by our remedies, which the efforts of nature are competent to remove.

It is a well established law of the animal economy, that no two diseased actions can exist in the system at the same time, and it will not be denied that mercury cures fever by creating the specific action of the remedy; but when the febrile action is well established, it is very often impossible to substitute the action of our remedy, and we lose our patient. But if we do ultimately effect our object, it is at the expense of an immense amount of suffering, and a long, protracted confinement.

The Pathology which I contend for, and the Practice based upon it, saves to the patient this suffering, avoids the danger of a fatal termination, and subdues the disease nine times in ten, in the course of eight and forty hours.

But it is entirely unnecessary to indulge in theoretical speculations to prove that my views of Pathology are, in the main, correct, for the results of the Practice, about which there can be no mistake, most fully confirm them.

What is the great and leading indication in the treatment



of fever? Is it not to subdue the preternatural heat on the surface, and has not a general perspiration ever been regarded as a highly favorable indication of cure? and can this be accomplished in any other way, than by the use of remedies that are calculated to allay the irritation upon which the "spasm of the extreme vessels" depend? And what class of remedies are resorted to to secure this desirable result? Are they not sedative? What is ice, but the most powerful sedative in nature, and does not the abstraction of blood produce a sedative effect, and are not these remedies generally resorted to for the purpose of subduing high arterial action, when no local afflictions forbid their use. Upon what system do sedatives act most directly? *Is it not on the nervous system?* If this be so, I insist that it is proof conclusive, that fever has its seat in that system. In the onset of fever we have no visible derangement in the Secretory System, and we sometimes have forms of fever, that continue for days and weeks without any evidence of derangement except in this system, and the heart and arteries, but they are certain to show themselves in time, unless the fever is subdued.

There is a great difference in fevers as relates to the extent of derangement in the nerves. In the Typhoid type, the disease is apparently confined to the nervous tissues. We have but little other functional derangement for many days, and the nervous symptoms predominate throughout the progress of the disease. This is no doubt attributable to the fact, that actual lesion takes place in some part of the spinal column early in the progress of the fever; while in other forms of fever, the irritation is located in some one or all of the other systems. We have forms of fever when the lungs are the seat of irritation; others when the stomach and bowels are most prominently affected—and we have a form of fever in which we have cerebral, thoracic, and abdominal affection, showing themselves simultaneously very soon after the first symptoms of nervous irritation are perceptible, and this form of fever will prove fatal nine times out of ten under the best plan of treatment recom-

mended by the books. The Congestive forms of fever, now so common in this region, belong to this class of disease, and which I shall notice more fully before I am done.

In cases of this character, I suppose the impressions are made upon the nervous system in the same way that they are made in the less rapid and malignant forms, but owing to an unnatural degree of irritability in the nerves of the parts affected, we have a sudden rush of blood to the head, lungs, stomach, and bowels, or all together, which produces violent functional derangement in the organs, which speedily destroys life unless removed. In such cases, no trace of disease is left to guide the Pathologist, no perceptible lesion is found in any of the tissues, to account for the phenomena. That great derangement existed in the parts, no one can question, and that it is to be looked for in the nervous tissues is rendered highly probable from the following anatomical and physiological facts, that have been well established by Doctor Abercrombie in his researches into the diseases of the substance of the brain. He has shown that actual disorganization may take place without changing the appearance of the part materially. None of the appearances which are found in similar conditions of other tissues, are to be found in the nervous. In all the variety of inflammations we find ample traces of the disease to account for all the phenomena. Not so in fever; and yet the difference in the symptoms characterizing the two forms of disease, are more imaginary than real. In fever, we have general uneasiness, while in inflammation we have *pain* in particular parts, but in both we have increased heat and arterial excitement. Very soon, however, in fever, we have pain, and sometimes tumefaction in particular parts, and when this occurs, where are we to look for the distinction, except in the post-mortem appearances; and not even here in all cases, for where the patient lives long enough, we find actual lesion in the parts affected.

My doctrine is, that the difference consists mainly and solely in the fact, that in fever we have irritation and le-



sion in the nervous tissue, while in inflammations we have them in the other tissues. The morbid impressions in the one case are tangible to the senses, while in the other they are not.

The immortal Doctor Bell has demonstrated that the great bulk of the nervous tissue is destitute of sensation, consequently, in fever without local determinations, we have no pain, as we have in inflammations, but we do have what amounts to the same thing, a general uneasiness more distressing than actual pain. The nerves of nutrition and motion being destitute of sensation, the functions dependent upon them are affected imperceptibly, and hence the conclusion of some, that the diseased action originally exists in these functions. The nervous system being the most important of all others in the animal economy, is it not reasonable to conclude that it is more liable to disease than any other; and since all the functions depend upon it for their healthy action, is it strange that general disturbance should follow as a consequence of diseased action in the nervous system? a result we never fail to find in fever.

Having established (at least to my own satisfaction,) that fever is the result of disease in the nervous system, and that all other derangements are to be regarded as secondary affections, I shall proceed briefly to give my views of the practice which ought to be pursued in the commencement of the attack, and I know of no way by which I can make myself understood more clearly, than by reporting one or more cases (out of the hundreds I have treated on this plan, with the same uniform success,) of the different forms of fever found in this region of country, during the last ten years.

William S——, laborer, was attacked with Fever in February last. I saw him a few hours after he took to his bed at about 9 o'clock in the evening. He had been complaining of languor and debility during the day, but did not leave his work until about 4 in the evening, when he was suddenly seized with violent rigors, and so great was the muscular prostration, that he was unable to stand without

help. He complained of general soreness over the whole surface. Pulse over 140, full, but easily compressed, with quick breathing, interrupted occasionally with a long heavy sigh; skin hot, but not dry. Complained of no pain except a slight pain in the head. Could fetch a full inspiration without causing pain. I opened a vein in the arm, more for the purpose of seeing the effect it would have upon the breathing, than from any expectation that it would relieve the symptoms; and after taking about 16 ounces, the symptoms were evidently aggravated. As usual in such cases, I gave him five grains of quinine, with five pills composed of one grain of opium and three of calomel, each, and left a powder composed of five grains of quinine with three of opium, to be given in six hours. I saw him two hours after, and found him sweating freely; pulse about 100, strong and full; breathing natural, and said he felt entirely well. Saw him the next morning at 8; had taken the powder as directed, and sweat freely during the night; pulse natural, pain and soreness gone; had not slept much during the night. I now gave him salts and senna, which operated freely in three or four hours, when I repeated the opium and quinine in doses of three grs. of each every six hours, until three doses had been taken. In the evening, found him sitting by the fire comparatively well, but complained of feeling extremely weak. Directed him to keep in doors for two days and live on soups, tea and toast, and at the end of that time he was at his work again as though nothing had happened. Some 10 other cases of this kind were treated in this way, except the bleeding, with the same results in the course of 8 or 10 days, during which time, 5 cases proved fatal under the evacuant plan of treatment in other hands in 48 hours, becoming entirely insensible after 20 or 24 hours from the commencement of the attack. The only patient I lost, was a child 5 years old. In this case, I gave a dose of Ipecac to relieve the difficult and rapid breathing. I returned in two or three hours after, and found my patient beyond the reach of remedy, and she died in 19 hours from the first symptom of



indisposition, which was a slight chill, followed with fever and rapid breathing.

I regarded these cases as most violent and malignant forms of Typhus Fever, or, as they are sometimes called, cases of Typhoid Pneumonia, Cold Plague, Winter Fever, &c.,—differing only from the milder forms of Typhus, in the fact of being more rapid in their progress in consequence of the nervous system being as it were, *overwhelmed by the force of the exciting cause*. Hence the necessity or rather the advantage of combining the quinine with the opium and calomel. The quinine might have been omitted with safety, but in such cases I prefer using it. The calomel I know can be dispensed with without lessening the efficacy of the treatment, as I have demonstrated over and over again in the treatment of this form of fever, and I only give it as a matter of convenience, for its cathartic effect. The following case is in point. I would remark here, that I never resort to the quinine except in the malignant forms of the disease.

I was called to see Mrs. H——, who had recently lost in her family, a nephew and a daughter, after a lingering illness of what the doctor called the winter fever, both of which had been treated on the mercurial plan. She had been confined to her bed for five days, but had taken nothing but oil and pills of some kind. There was every symptom of Typhus Fever present, with slight affection of the lungs. She begged that I would not give her calomel, and not regarding it material, I promised I would not. I accordingly left her two powders of 4 grains of opium each, the second to be given eight hours after the first, and to drink hot sage tea freely until sweating was produced. Saw her the next day, much improved in appearance, and said she felt much better—had perspired freely all night. Directed a dose of oil and four grains of opium at bed time, with *three* grains eight hours after, with the same effect as before. Found her the next day greatly improved, and entirely free from fever. Repeated the oil, and left three grains of opium to be given at bed time. Did not see her

again for three days. Found her sitting up free from fever, but very much troubled with a dry cough. Applied a blister to the chest, and left her the brown mixture. She recovered steadily but slowly, the cough not leaving her for ten or twelve days. Several other cases occurred in the same neighborhood, which I treated with opium in the same way, with the addition of the calomel, all of which were convalescent in forty-eight hours after the first visit, and no case was seen after the third visit.

Five cases, treated by other Physicians, proved fatal in the neighborhood that fall and winter (last winter). I am certain that I prescribed for two-thirds of all the cases that occurred, without losing a single case of fever in the vicinity.

I have now given a case of the mild, and most malignant forms of *Western Typhus Fever*. I now propose to give, for the purpose of more clearly illustrating my system of practice, one case of Congestive Intermittent, and one of common Remittent.

Some three weeks since I was called to see Mrs. S——. She had been taken the evening before with what she supposed to be a simple chill and fever. The chill had lasted some six or eight hours, accompanied, as she expressed it, "with a burning fever, and a feeling of freezing all the time," with the sensation of a loaded waggon running over her breast. She was lying in bed comparatively comfortable, and free from fever as she supposed, but expressed herself as alarmed for the consequence of the next chill, which she was expecting in the course of two hours. On feeling her pulse I readily detected that peculiar, but indescribable pulse, always found during the intermission in this form of disease. She said she felt tired, and when she attempted to sit up, she became sick at the stomach. I was satisfied from her general appearance that the next paroxysm would prove fatal, unless prevented or greatly mitigated, and there was no time to be lost. Accordingly, I administered in a little coffee, five grains of quinine with five of opium, and left five more of quinine with two of



opium, to be given in six hours, directing her to drink hot tea freely until she got into a free perspiration, but before leaving the house she complained of feeling cold, and commenced breathing quick and laboriously. On going to the bed side, I found her hands cold; pulse small and rapid. The powder had only been swallowed some fifteen minutes, not long enough to produce any sensible effect upon the system, still I had every confidence that it would act in time to moderate the paroxysm. I applied a strong mustard poultice to the stomach, which acted promptly, when the breathing improved, but by this time the powder began to act. The pulse became slower and more distinct, drops of perspiration showed themselves upon the forehead, and in one hour from the time the dose was administered, she was perspiring freely, and said she felt better than she had for two days before; and being satisfied that she was safe, I retired for the night, repeating the direction to have the second powder given at the end of the six hours. The next morning I found her entirely comfortable—had not slept much during the night, but felt disposed to sleep then. I directed a dose of oil, which operated in two hours very freely, when I repeated the quinine in five grain doses without the opium, and left my patient convalescent. The next day she was up doing her work.

I am convinced that if the dose had been delayed one hour longer in this case, the paroxysm would have proved fatal, for I am satisfied from experience, that but little can be effected by way of mitigating the paroxysm after it is once fully formed, by internal remedies. If there is vigor enough in the *vis-medicatrix natura* to throw it off, you can save your patient by rightly improving the remission. I say *remission*, because I am satisfied that we have no *intermission*, such as we have in our ordinary intermittents, in this malignant form of fever, and I am equally satisfied that nothing but sedative doses of opium or quinine will save our patients—and of the two I prefer opium, for five grain doses of it prevents the paroxysm certainly, while the largest doses of quinine sometimes fail, particularly where

the stomach is inclined to be irritable, which is often the case; and for the further reason, that the opium exerts no deleterious influence upon the system, which cannot be said with truth of 10 or 15 grain doses of quinine. From five to six grain doses of quinine, will, for all time to come, be my maximum dose. If I desire a sedative effect, I can procure it with more certainty with opium in four or six grain doses; *which I contend is the smallest dose that can be relied upon for the full sedative effect required for a case of fever.* The reason why so little benefit has been obtained from opium in the treatment of fever, heretofore, is to be attributed to the fact of its never having been given in full doses until given by myself.

When Dr. Cartwright, of Natchez, Mississippi, first proposed ten grain doses of quinine, the Medical World were as much shocked with its absurdity, as they now possibly can be at the dose of opium which I recommend; and it is but recently that it is conceded that it can be given in ten grain doses with comparative impunity, and to the extent of 40 and 50 grains in malignant forms of disease, without being destructive to life—and it is now universally admitted, that we can obtain two opposite effects by regulating the quantity. If we give it in one grain doses, repeated every hour, in a paroxysm of fever, we aggravate all the symptoms, and in all probability, before ten grains shall have been given, fatal congestion of the brain will have been produced. But if we were to give the ten grains at a dose, in precisely a similar case, none of these consequences will follow, but on the contrary we shall obtain full relief to all the symptoms by subduing the fever. This principle is more particularly applicable to opium than to quinine. Medical writers have long suspected that opium had an action different from that which had been usually attributed to it, and among them I would name the justly celebrated Pereira. [See his *Materia Medica* under the head of opium.] But no one, before myself, has had the temerity, as it has been called, to demonstrate the truth of the proposition by actual experiment upon the human system, in the treatment



of a form of disease that occupies four-fifths of the time and talent of the Medical World; but when the practice shall take the place of the present abused mercurial system, (as it is bound, sooner or later, to do,) there will be a saving of thousands of lives, and an incalculable amount of human suffering.

But the great obstacle in the way of its adoption by the Profession, as I have said before, is the dread of fatal congestion of the brain, if given in such large doses. One says he has known fatal congestion of the brain, to follow the use of *one grain*, repeated once in two or three hours, until four or five grains had been taken; and they exclaim with uplifted hands and eyes: My God! if such results follow from one grain doses, what, but almost instant death, could be expected from a five grain dose. My friend, Dr. Golliday, in his learned "critique" upon a communication of mine, published in the Illinois and Indiana Medical Journal, some year since, on the treatment of fevers and inflammations without mercury, in which I urge the use of from 4 to 6 grains of opium, quotes various authorities to prove that my practice is not admissible in inflammatory affections, although it can be nowhere shown "in the writings of Dr. Christison, Dr. Sobernheim, Dr. Rankin, Dr. Williams, or Dr. Periera," that they had ever used a four or five grain dose of opium in their lives, in the treatment of the diseases alluded to, in which they condemn its use, when I claim to have given it hundreds of times in these doses with the happiest effects.

Now I would ask the Doctor how he can give the preference to their authority based on mere theory, without calling in question my veracity, a thing which I presume, he had no intention of doing.

The Doctor does not seem to be aware of the fact, that I contend as strenuously as any other man, that anything short of a *full sedative dose*, (and by this I mean from four to six grains,) will as a general thing, do positive injury; and in that very communication which he very properly took the liberty of criticising, I laid down the proposition,

that a two grain dose repeated once in two or three hours, was almost sure to do mischief, when a five grain dose given once or twice in twenty-four hours, would be productive of great benefit. As in the case with quinine, so with opium. Give it in one grain doses in a paroxysm of fever, every hour until four or five grains have been given, and the chances are two to one that you will greatly injure, if you do not destroy your patient. But give it in one dose, and none of these unpleasant consequences follow.

I have already extended my remarks far beyond anything I had intended in the outset. One word in relation to remittents, and I am done.

John R——, a German laborer, recently arrived in the country, was taken down the first of September with all the symptoms of a common bilious remittent. When I saw him he had been in bed 24 hours with high fever, hot, dry skin, great thirst, and violent pain in the head and back. I found him the second day about noon, with all these symptoms aggravated; pulse 120, full and strong, tongue dry and glossy, and very red at the point. Bowels had not been moved for thirty-six hours. I gave him an emetic of Ipecac in broken doses, at long intervals, say half an hour, for the purpose of securing a full emetico-cathartic effect. Saw him four hours after and found that his stomach and bowels had been thoroughly evacuated, but with little relief to the symptoms. I now gave him five pills composed of opii i grain, calomel iii grains each; directed him to drink freely of hot tea, and left him for the night with every confidence of finding him in the morning entirely relieved. I found him as anticipated, free from fever, the pain in the head and back entirely gone, tongue moist and heavily coated with a loose, white fur. Said he got easy about two hours after taking the pills, and had sweat freely all night, and expressed himself as feeling almost well. Left him three five grain doses of quinine, to be taken once in four hours during the day, and to drink as much water gruel as he pleased. Found him in the evening down at the table eating his supper; said he was



very hungry, and felt entirely well, "except a little weak." His bowels had been freely moved during the day by the calomel. On the 4th of September he was again at his work as usual.

I have selected this case from among many others treated in the same way, for the reason that he complained more of his head and back than any other case I have treated this season, by way of showing Dr. Golliday and others, that a five grain dose of opium can be given, not only with safety, but with decided advantage, even when there was "strong symptoms of congestion of blood," and that too, to the brain and spinal column.

Now, supposing this case had been treated upon the usual plan; bleed first, give the emetic and the calomel at night without opium, does any gentleman suppose that he would have passed a comfortable night, been entirely free from fever in the morning, and at his work the next day? Would it not have been more likely that he would have spent a distressing night, with a temporary intermission in the morning, to be followed with an exacerbation in the evening, and this repeated day after day until mercurial action was established, or he beyond the reach of all remedy. Such has been the result of similar cases treated on the mercurial plan, at the *same time, and in the same neighborhood*, and such would have been the result had he fallen under my treatment ten years ago.

Do not such results go to prove beyond all question, that large doses of opium possess a power in the treatment of fever, greater than any other known remedy. The remedy which I once regarded as my sheet anchor, I can now dispense with entirely without material detriment to the treatment. But I do not propose to throw it aside; on the contrary, I still regard it as one of the best and most convenient *purgatives* in the whole materials of medicine. I only ask that it shall no longer be relied upon as the main remedy in the treatment of fever; for the reason that we have, in large doses of opium, one better adapted to meet the indications of cure.

In conclusion let me caution those of my professional brethren who would give the remedy a trial, not to delay a resort to it *until they have exhausted every other known remedy*, and when the case is beyond the reach of human agency. If you use it at all, use it in the early stage as I have directed, and my word for it you will not find cause to regret it.

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ARTICLE II.

*Fibrinous Concretions in the Ventricles of the Heart, extending into the Pulmonary Artery and Aorta, with extensive hepaticization of both lungs.* By G. SPRAGUE, M. D., of Kalamazoo, Mich.

Some ten days since (Oct. 23,) I was summoned to visit Hydenburgh, about a mile from this place, by occupation a farmer, æt. 36. The patient was a stranger to me, having settled in this vicinity withing the past year, from the State of New York.

I learned by the wife of the patient, that he had been for some fifteen years, much troubled with nervous symptoms; but was repeatedly assured that no cough or other indication of chronic lung disease, had ever manifested itself.

It seemed that on the afternoon of Oct. 20, Mr. H. was in usual health, and during that afternoon underwent rather severe bodily exertion. Near daylight of the following morning he had occasion to get out of bed when in a state of cutaneous moisture. He was immediately taken chilly, which state continued during the forenoon of the 21st. The afternoon of the same day was ushered in by some fever, pain in the chest, very laborious and rapid respiration. On the morning of the 22d, there seemed some abatement of pain, &c., but in the afternoon of the same day, there was a return of all the distressing symptoms in an increased degree. It was at two o'clock of the following day, (23d,) that I was requested to visit the case. I found the patient



to be a tall spare man, in whom the nervous and bilious temperaments were predominant. Countenance anxious; restless and impatient. Skin hot and dry; pulse full, incompressible and twisting. Percussion dull throughout the chest; respiratory murmur hardly perceptible; breathing very rapid and laborious; complained of pain in the head and left lung, near the spine, rather lancinating upon bodily motion; expectorated a small amount of sputa, a little tinged with blood. From a free orifice, I abstracted  $\text{xxiv}\frac{3}{4}$  of blood, which presented but little of the buffy coat. As the blood flowed, the skin became cool and moist, the pain ceased, the pulse came down to 90, soft and compressible. Breathing less laborious, and not so frequent. I followed the venesection by an Armstrong opiate, with as much ipecac as the stomach would retain, which was repeated in two hours. This had the desired effect, viz: to prevent reaction. The skin remaining moist, expectoration easy, though scant, and the pain not returning during the day.

He was put upon the sub. mur., combined with the compound extract of colocynth, to be given *pro re nata*—as also a mixture of Dover's powders, ipecac, and tartar. ant.; enough given each hour to induce nausea. These means were kept up during the afternoon and night of the 23d. On the following morning found my patient rather quiet, pulse soft and compressible; skin moist; expectorated a small amount of tenaceous sputa, a little tinged with blood; some pain in the chest, though slight. Directed a mustard plaster upon the back, and applied a blister upon the front of the chest, to the right of the heart—same prescriptions continued as before sufficient to keep the bowels loose, skin moist, &c. Alvine evacuations, bilious. Visited again on the evening of the same day, found my patient rather restless; skin and conjunctiva becoming very much charged with bile. Pulse still soft and compressible; breathing more hurried and difficult. Similar prescriptions were continued, to the foregoing, sufficient to keep up their several effects through the 25th. On visiting my patient on the

26th, found no yielding of the deposite of bile in the skin and conjunctiva; more restless, delirious; pulse occasionally intermitting and unsteady in its beat; cough a little tightened; skin still moist. He remained in this condition through the 26th, becoming more delirious, asserting that he should expire when morning came. About ten o'clock at night, I was requested to visit the patient. Found a gradual wasting of the vital forces. At this time, Dr. White, (recently of the army,) was called in council, who judged, as I had been induced to do, from the voice of the patient, that there was probably some chronic disease of the lungs of long standing. We left him with a mild prescription, for the night. At daylight of the following morning, after having become somewhat composed, he expired.

*Autopsie twenty-eight hours after death.* Present, Drs. White, Allen, Howard, and myself.—Body not much wasted, skin and eyes very yellow. Upon opening the thorax, there was found firm adhesions throughout the chest, between the two pleuræ. Pericardium contained some five or six ounces of fluid. Heart considerably hypertrophied, though firm in texture, and presenting in its external appearance considerable enlargement of its blood vessels. Upon opening the right ventricle, it was found to contain two fibrinous concretions. The base of one of them was about three-fourths of an inch in width, and one-eighth in thickness, gradually narrowing down to a point, and extending itself into the pulmonary artery. The length of this formation was about six inches. It had a fimbriated extremity, made up of firm blood vessels distinct from each other. Its base was attached very firmly by distinct blood vessels and fibres, to the columnæ comæ. The second formation found in the same ventricle, arose by two bases, in the same manner as the first, each base being three-fourths of an inch in width, and one eighth in thickness, coming together at the entrance of the pulmonary artery, giving off a branch three eighths of an inch in width, reaching the bifurcation, and giving a branch to the right and left, of an inch in length, with fimbriated ends, as the



other. Upon opening the left ventricle, a deposit of the same kind was found, with as distinct an organization, having a base one inch in width and one fourth in thickness, with several extremities having fimbriated ends, and reaching about four inches from its origin into the aorta. There was also a second formation commencing to organize in the same cavity of considerable size, though imperfect. Their texture is as firm as muscle, and the fibres as distinctly marked, though in color they are quite pale. Their entire weight was nine drachms. The entire body of the lungs were found engorged and hepatized, presenting much the appearance of diseased liver. In several places small abscesses were found, containing thin pus. The liver and spleen were a little engorged and enlarged, though presenting no very striking marks of disease. The gall bladder was distended with vitriated bile.

Dunghison records a case somewhat similar to the foregoing, though more limited in extent, and producing the same effects upon the lungs as were here produced, though the hepatization was confined to one lung. Under fibrinous concretions in the heart, that learned author remarks: In a case of great impediment to the circulation of the blood through the lungs, which fell under the author's care, and in which, on application of the stethoscope, the respiratory murmur was totally inaudible in any part of the right lung, whilst it was distinct in the left; and percussion on the right side gave the dull, heavy sound of a solid mass—the sound of the left side of the heart was so loud as to countenance the idea of dilatation of the cavity with thinness of the parietes—whilst the sound on the right side was indistinct, but there was a peculiar *bruit*, appearing, as it were, compounded of the *bruit de soufflet*, or bellows sound, with the *freemissement cataive*, and evidently indicating the existence of some impediment to the passage of the blood through the right heart. On the dissection of this case, the right lung was found completely hepatized throughout its whole extent, whilst the left lung was nearly healthy. On taking out the heart, the right pulmonary ar-

tery was found completely plugged up by a same organized mass, having the appearance of muscle, extending through the semilunar valves, and attaching itself strongly to the columnæ comæ of the right ventricle. The same author quotes the following from Hughes: Occasionally, the polyphoid and polypiform concretions produce death by blocking up one of the apertures of the heart. Watson, in his *Practice of Physic*, speaks of mechanical impediments to the passage of blood from the heart, being in many cases of a permanent character, and causing hypertrophy of the ventricles, but does not specify as to what these impediments are. We look in vain in Latham's clinic of the diseases of the heart, for any account of such formations. Professor Dunglison again says, (*Cyclop. of Practical Medicine*,) at a late clinical lecture at the Philadelphia Hospital, the writer exhibited to the class a semi-organized fibrinous concretion in the right ventricle, the existence of which he foretold before dissolution, owing to the sound of impeded transmission of blood through the heart, in a person dying of pleura pneumonia—and a similar case occurring in his service in the Baltimore Infirmary, was published by Dr. McNeal, in the *American Medical Intelligencer*, July 1st, 1837. Armstrong says: It was an opinion that polypi formed about the heart. In many bodies you will find strings of coagulable lymph hanging about the ventricles or auricles, or in the pulmonary artery or veins; they are formed during the agonies of death.

That the formations in the case here reported, did not take place in this manner, is very certain. Their firm, well developed, fibrinous organization, their distinct origin by blood vessels, and the distinctness and tenacity of the vascular, fimbriated extremities, as well as the condition of the lungs, all go to prove that a long period only had been sufficient to produce such a condition.



### ARTICLE III.

*Various Forms of Intermittent Diseases.* By Dr. W. H. MARTIN, of Rushville, Indiana.

The Physicians of our State, and probably of the whole Mississippi Valley, are more frequently called to prescribe for diseases of an Intermittent character than for any other form. That they all have their origin in a malarial cause, is generally conceded. That the same remedies are equally efficacious in all the multifarious cases presented to our care, our almost daily experience fully testifies. That there are cases, however, of this character, enveloped in such obscurity, and having such anomalous complications as to produce a conflict of opinions in the minds of many, particularly the juniors of the profession when called upon to treat them, cannot be doubted. If there be such, the relation of the following cases may not be uninteresting.

*Case 1.*—Mr. S. B., aged 54, of strong temperament and good constitution, arose early on the morning of the 5th of June, in good health, and after having taken his usual stroll on his farm, returned to the house and was attacked suddenly with pain. Being his family physician, he sent for me immediately. Upon enquiry I found that there had been no previous indisposition. The pain seemed to follow the course of the left ureter, and was very severe, of a persistent character, yet there were times when it was much more pungent and laucinating. The inclination to micturate was constant, and the urine passed off *gut-tatum*. No tenderness on pressure any where; extremities rather cool; pulse somewhat oppressed and about 65; tongue slightly coated.

Gave him sub. mur. hyd 20 grains,  
pulv. opii 3 " and placed  
him in a warm hip bath, in which he remained about thirty  
minutes, much to his relief. He was then placed in bed,  
sinapisms put to his ankles, a dose of ol. ricini ordered in  
three hours, accompanied by forty drops of laudanum  
should there be a continuance of pain, and injections of a

mild solution of mur. soda, if the oil did not operate in due time. *June 6th.*—Called to see my patient early, and found that the pain had entirely subsided in three hours after the time of attack on yesterday, and he had remained easy and felt entirely well until this morning, when there was a return of the pain accompanied by some chillness. He had taken, previous to my arrival this morning, 2 grains sulph. morphine, which I left during my visit yesterday, and was immediately placed in the warm bath. I remained with him about one hour, during which time the pain left him, and there came up slight fever. The medicine on yesterday produced copious alvine dejections of a good character.

Left fifteen grains quinine in five powders, to be commenced at 6 o'clock in the evening, and repeated every two hours until all were taken.

*June 7th.*—No return of pain. Cured.

*Case 2.*—Mr. B. T., aged 49. Habits irregular. Constitution pretty good. Was brought to our office in a waggon on the 10th of July, complaining of an excruciating pain in the left shoulder, which he said made its attack on the evening previous. Upon examining the shoulder we found it somewhat swelled over the joint. Complained of soreness upon being handled, with entire inability to raise the arm. Would not submit to venesec.

Gave him a linament composed of spirits of ammonia, terebinth. and ol. lini, to be bathed freely over the joint.

Pulv. opii      2 grains,

Ipecac,          1    “

Nit. Pot.        5    “    to be repeated every

two and a half hours until relieved. Then to take an active purge of sulph. magnesias and senna.

Saw him again on the evening of the 12th. During the whole of yesterday, and until four o'clock this evening, the patient was entirely easy, but at this hour there was a return of all his former suffering. Put a warm hop poultice over the painful joint, and again placed him under the influence of anodynes, to be followed, after the subsidence of pain, with a dose of ol. ricini and spirits trerebinth. At six



o'clock on the morning of the 14th, in anticipation of the evening paroxysm, he took three grains quinine, and repeated it every two hours until he had taken fifteen grains.

*July 15.*—Patient had no return of pain yesterday, and up to this time remains well.

*Case 3.*—On the 6th of May last, I was called in consultation by a neighboring physician to see a man who had suffered a short time previous with an attack of continued fever. but who had been discharged, some eight or nine days previously, by his physician as cured.

At the time of my being called in, he was afflicted with severe vomiting and purging, which I was informed had occurred on the two evenings previous, each paroxysm coming on about the same time, and leaving the patient easy but much prostrated. During these attacks the extremities were of an icy coldness. Upon the present occasion, we placed sinapisms on his ankles, wrists, and along the course of the spine. A flannel was wet with hot spirits of camphor, and laid on the epigastrium, and hot brandy toddy was occasionally administered. Under this treatment, the paroxysm was much shortened, and the supervening prostration lessened. He was then placed under full doses of quinine, from which time his convalescence was rapid. We have had a number of cases of this character, during the present season, every one of which yielded to the quinine treatment. Bleeding, blistering, sweating, and purging, with their multitude of inconveniences, in the treatment of a great majority of our summer and autumnal diseases, are fast becoming "things that were," much to the comfort and safety of our patients.

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#### ARTICLE IV.

*Salivation by Chemical action in the Stomach.* By J. S. JONES, M. D., of Covington, Ind.

Braithwait, in his *Retrospect*, No. I, Part 1st, page 45, notices, what the *London Lancet* calls an ingenious explana-

ation, by Mr. Snow, in a discussion in the Westminster Medical Society, of the occurrence of salivation by mercury more readily at one time than at another. As will be recollected, he supposed it to be "the result of the presence of acid in the first passages, converting the blue mass, or the calomel, into corrosive sublimate." He came to the conclusion, by often seeing patients salivated by taking a small portion, at the same time with mixtures containing sulphuric acid.

My intention is only to inquire, whether Mr. Snow's position merits thought; and if it does—whether sulph. acid is indispensable in the chemical process?

Although the British Colleges adhere to the old nomenclature, muriate and sub. mur., since not only our best chemists, but the decision of the U. S. Convention in the revision of our Pharmacopœia, in 1830, justifies our calling them the proto and bi chlorides, we will use these terms.

It is well known that chlorine and mercury, at common temperatures, combine with one equivalent of each, producing the proto-chloride, or calomel, but when heated they combine two to one, forming the bi-chloride (Beck's Chem., page 365). Knowing full well that all the juices of the stomach are saturated with chloride of sodium, the question arises, is the heat of the stomach sufficient to cause a union of two parts of chlorine to one part of mercury? If so, we must conclude that mercury acts only as a bi-chloride, and that unpleasant effects depend on the speedy chemical union—that when it is slow, injury is not as likely to be produced.

Sulphuric acid may facilitate the operation, by combining with the soda, forming sulph. soda, and leaving the chlorine free for a more ready combination with the mercury; but without the help of this acid, we are aware that muriate of sodium, mercury, and caloric, will generate corrosive sublimate—then why not in the stomach as well as in the crucible. But what is it that facilitates or retards the chemical process, at one time affording enough to produce all the unhappy effects, and at another time scarcely



being perceptible, regardless, too, of the use of sulphuric acid mixtures, as observation shows. Does it depend on the quantity of muriatic acid in the stomach at the time, or can there be a better cause assigned?

Mr. Snow considered the remedy to be in the use of the bi-chloride at once, and in suitable quantities.

If blue mass or calomel is preferable, can they not be combined with the proto-chloride of tin; chlorine having a stronger affinity for tin than mercury, bi-chloride of tin will be the first production, using up the chlorine, and thus preventing a combination with the mercury. The points in question, are:

1st. Can chloride of sodium and mercury remain together in the stomach, without producing the chloride of mercury?

2nd. Is the heat of the stomach sufficient to produce the bi-chloride?

3d. What facilitates or retards the process?

4th. What would be the effect of proto-chloride of tin used in connection with mercury?

If the subject merits attention, we hope to hear from the profession respecting it.

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Our leisure has not been sufficient to permit us to examine the subject as we would like, before attempting to answer the queries of our correspondent. We accordingly lay his article before our readers, that they may acquaint us with any facts in their possession, which may bear upon the subject, and hope that we may, by our next number, find time to institute some experiments which may perhaps enlighten us on the points proposed. J. V. Z. B.

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ARTICLE V.

DUBUQUE, IOWA, Oct. 2, 1847.

MR. EDITOR:

*Dear Sir,*—The following case is at your disposal.

A boy, 7 years old, was brought to me by his mother,

three weeks ago, affected with amaurosis. It was thought advisable to have removed four much decayed molar teeth, when the lad, with his mother, accompanied me to the office of Dr. Lee, dentist, for the purpose. After much labor, the fangs of two teeth were skilfully removed—the patient displaying the utmost fortitude and self-possession.

This done, he entered his solemn protest against all further proceeding, and stoutly resisted argument, persuasion, and force. I proposed to control the case with the *letheon*, which was approved by the dentist, and by my partner, Dr. Sprague. A sponge, saturated with ether, was held to the nose in such a manner as to admit a due amount of atmospheric air. *To this he opposed all his strength*, but in about two minutes became quiet, then burst into an idiotic laugh, and soon passed into a tranquil sleep. During the repose, the other teeth were extracted, without the least manifestation of pain or consciousness—the sponge having been re-applied to check returning sensibility.

A few minutes after, he walked to our office, free from the effects of the gas, and ignorant of the latter part of the operation, which lasted ten or fifteen minutes. The *letheon* used was that commonly found in shops.

ASA HERR.

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ARTICLE VI.

MESSRS. EDITORS:—The following is a brief abstract of the proceedings of the Rock River Medical Society, at its last session, which you are at liberty to publish if you please. Owing to the inclement weather and the bad state of the roads, the meeting was not quite so large as usual, but still the exercises throughout, were highly interesting, and the members manifested a noble zeal in sustaining the interests of the medical profession at the West. The hour of our meeting was too brief. Such meetings, with kindred spirits, who have common interests, are always too short. They are to the toil worn physician what the fragrant oasis is to the weary traveller.



Pursuant to adjournment, the Rock River Medical Society held its semi-annual meeting, at Beloit, W. T., 16th November, 1847.

The President being absent, A. Clark, M. D., the 1st. Vice President, took the chair, Dr. VanBrunt was appointed Vice President, pro. tem., and Dr. D. G. Clark, Secretary pro tem.

The meeting being duly organized, the following gentlemen, on motion, were admitted members of the Society, to wit: Drs. Moore, Williams, Davis, Hooker, Clark, and Lane.

A paper was then read by Dr. S. G. Armor, on the Symptomatology of Disease, as furnishing indications of cure.

Many interesting cases were then reported, and much valuable information elicited upon subjects connected with the interests of the profession at the West.

Dr. I. C. Goodhue offered the following resolution which was unanimously adopted by the Society.

*Resolved*, That this Society will hereafter diligently inquire into, and vigorously enforce the Constitution and By-Laws, against any member or members who may countenance or consult with imposters in medicine or surgery.

Dr. L. Clark then offered the following resolution, which was unanimously adopted :

*Resolved*, That in the opinion of this Society, the reforms suggested by the American Medical Association as to the preliminary education of Students, their time of preparatory study, the branches taught in medical schools, length of sessions thereof, &c., are loudly demanded, and meet our entire approbation.

The following resolution was then offered by Dr. Ames, and unanimously adopted :

*Resolved*, That this Society do now elect the number of delegates to which it is entitled in the American Medical Association, which will meet at Baltimore, May, 1848.

Whereupon, Drs. I. C. Goodhue, S. G. Armor, A. E. Ames, J. B. Nash, and A. Clark, were appointed said delegates.

On motion, the Society adjourned to meet at the First Congregational Church, at six and a half o'clock, p. m., at which time the Society and a large number of citizens, who had assembled agreeably to invitation, listened to eloquent and appropriate addresses from Drs. Goodhue and Armor.

At the close of these exercises, the citizens retiring, a full and free discussion was entered into in relation to the character, type, symptoms, and pathology of Typhus, Typhoid, and Periodical Fevers.

On motion, Dr. L. Clark was appointed to read an essay at the next annual meeting at Dixon, and Dr. Ames to deliver a lecture at the same time and place.

The Society, after returning their thanks to Drs. Goodhue and Armor, for their able and interesting addresses, adjourned to meet at Dixon, Illinois, on the third Tuesday in May next.

D. G. CLARK, *Secretary pro. tem.*  
*Rock River Medical Society.*

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#### ARTICLE VII.

*Surgery in the Hospitals after the battle of Buena Vista.* By W. B. HERRICK, M. D., Professor of Anatomy in Rush Medical College, and late Surgeon to 1st Regiment Illinois Volunteers.

On the day of the battle, the wounded, after receiving such attention from the surgeons, as could, at the time and under the circumstances, be given to them, were removed from the field, some to Saltillo,\* others to the Ranchara de Buena Vista.

When, on the evening of that day, we arrived at the last named place, we found those of the wounded still living, the dying and the dead, crowded together indiscriminately, and presenting a melancholy picture of suffering

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\* In the third line of our communication in the preceding number of this Journal, headed "Surgery at Buena Vista," for "Agua Nueva, ten miles from San Luis Potosi," read Agua Nueva, ten miles from Saltillo, on the road to San Luis Potosi.



and distress, not easily described, and never to be forgotten.

As soon as circumstances would permit, such as were still living, were selected from their less fortunate companions, placed in wagons in charge of the writer, and conveyed, late at night, to the large cathedral in town, which had already been converted into a temporary hospital.

The time, both day and night, for the forty-eight hours after, was spent by the surgeons in attending to such wounds as had been overlooked on the field, in renewing the dressings of those requiring attention, and in performing amputations and such other operations, as, upon a re-examination of the cases, seemed to be required.

During the third, and a part of the fourth days subsequent to the battle, the wounded were removed from the large but crowded church, to more convenient buildings, each capable of containing from fifty to one hundred patients.

In making this more permanent arrangement, those of the volunteers belonging to the same State, were, as far as was practicable, collected together in the same Hospital, and placed in charge of some one of their respective surgeons.

The wounded of the first and second Illinois regiments, consisting in all of nearly one hundred, in the proportion of about ten officers in their private quarters in different parts of the town, to eighty or ninety privates, collected together in one of the best and most commodious of the above named hospitals, came, in accordance with the plan adopted, naturally under our charge.

Myself, and so far as I know, all other surgeons in charge of hospitals, on making the proper requisitions, were provided with assistants, attendants, hospital stores, provisions, &c., promptly, and to an extent creditable both to the officers in charge, and to our country.

With regard to the subsequent termination and treatment of the cases under the charge of myself and others, it may be stated that most of the simple flesh wounds

healed rapidly and kindly under the use of dressings of lint, changed once in twenty-four or forty-eight hours, with an occasional aperient, and a diet adapted to the case. In some few instances the tendency to inflammatory action was so great as to require general antiphlogistic treatment, and the use of emollients, anodynes, and other soothing local applications

The presence of foreign substances in the simplest wounds, frequently caused protracted suppuration, and the formation of abscesses, and thus retarded their cure, in many instances, for a long time.

Stimulants and tonics, such as brandy, wine, iron, and acids, were used freely by myself and others, and with marked benefit in all cases of debility consequent upon profuse suppuration. (A friend who has observed the beneficial effects of such treatment in one or two cases of the kind, suggests the propriety of using astringents, in the form of lotions or injections, to moderate the profuse and debilitating discharge from extensive suppurating surfaces.)

The gun shot wounds, in which bones were injured, presented all the complications of compound comminuted fractures, and proved to be the most troublesome and difficult cases to treat. The practice usually adopted by us, was to search carefully for and extract all detached pieces of bone, cleanse the wounds, bandage the limb firmly to a point high above the injury, and then to apply splints to prevent motion, but so as, if possible, not to interfere with the renewal of dressings, of the exit of pus. Thick paste board splints, shaped properly, perforated opposite to the external wounds, moistened and adapted accurately to the limb thus injured, afforded, when dry, a most perfect and firm support, and were found, therefore, to answer better than any others, the indications in such cases.

Shortening was, in a few instances, the necessary consequence of loss of portions of bone, but these were exceptions to the general rule, for in most cases of fracture, union took place without loss of motion or deformity.

In our last communication we remarked, that in a ma-



jority of instances, primary amputations were followed by favorable, and secondary, by unfavorable results. The principal reasons why this was the case are obviously the following: The most of the amputations upon the field, the only ones truly primary, were performed upon individuals in good health, and under excitement, and, therefore, not in a condition to suffer from debility or nervous depression. The subjects of the subsequent operations, on the other hand, had become depressed both physically and mentally by profuse suppuration, pain, and want of rest, and were, therefore, cases in which unfavorable results are most generally expected.

Most of the amputations in the hospitals were performed after consultations, and were found to be indicated, in most cases, not by the severity of the injury, so far as could be determined by the first examinations, but by the appearance of general symptoms of an unfavorable character, in many instances, such as are consequent upon the absorption of pus.

It is a remarkable fact, that upon making examinations in the only two cases which proved fatal after the first week under my care, one after amputation, balls were found lodged in cavities filled with pus, one at the upper, and the other at the lower extremity of the tibia.

In our opinion, the fatal termination of these cases, as indicated both by the symptoms and the examinations, was in consequence of the absorption of pus, for it must be admitted that pus globules, whether too large or not to be absorbed by uninjured vessels, might readily pass into the large venus sinuses, such as are found every where in large bones, when broken into as in the cases above cited.

In conclusion, I will state that the enemy had proved themselves to be mere barbarians, by murdering all of our wounded they had met upon the field, thus leaving alive but a small number of those most severely injured, consequently, the proportion of deaths to the number treated was comparatively small, not averaging, as we believe, after the first day or two, more than five or ten in a hundred.

In the hospitals which had been provided for the wounded Mexicans, and placed in charge of their own surgeons, a proportion of the cases, amounting to at least one half of the whole number, terminated fatally. This mortality among their wounded, resulted partly, doubtless, from the nature of their wounds, many of which had been produced by the balls, grape shot and shells from our large guns, but principally, as the effects of comparatively slight wounds upon naturally bad constitutions, rendered still worse by a diet composed of saccharine, fatty, and other carbonaceous substances, and a life of idleness and dissipation, such as they had been living during the six months previous, at San Luis Potosi.

In proof of this, it may be stated, that with them nearly all the cases in which amputations were performed, whether early or late, terminated fatally, many after troublesome hemorrhage from numerous small vessels, both during and after operations, and the entire absence of a tendency to adhesion or healthy suppuration.

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#### ARTICLE VIII.

*On the use of astringent and stimulating injections in profuse suppuration.* By DANIEL BRAINARD, M. D., Professor of Surgery in Rush Medical College.

Every practical surgeon must have met with cases of suppuration following upon erysipelatous or morbid inflammation, in which the tissues seem to melt away, or be dissolved in pus, and those who have the care of hospitals, or have practiced where the epidemic erysipelas was prevalent, can testify to the frequency with which this abundant suppuration carries off patients; those, especially, who have lost much blood from wounds or operations, or who are addicted to the use of alcoholic drinks, or debilitated from previous disease, when attacked with diffuse suppuration, are speedily exhausted by the discharge, if not poisoned by the absorption of pus into the system.



Under these circumstances, the ordinary means recommended are often, if not generally ineffectual; for wine, bark, brandy, acids, and nourishing soups, although they support the strength and prolong life, are, for the most part, but partial palliatives, for they can neither restore the waste of blood from copious suppuration, nor prevent purulent absorption or its effects, nor indeed be retained in considerable quantities in the stomach. Hence it becomes necessary to resort to other means, and that which we would recommend to the profession is the direct application of stimulant and astringent solutions to the purulent surface.

Pus is a fluid containing corpuscles analagous to those of the blood, rich in the nutritive portions of that fluid, and when lost in large quantities, is attended with the same results as hemorrhage or profuse serous diarrhoea. If the term serous hemorrhage be applicable to this latter disease, that of purulent hemorrhage is much more suitable for these cases which we are at present considering, and since, in an oozing of blood from a mucus or cut surface, or in a serous discharge, we resort at once and with promptness to local astringents, or the internal use of acetate of lead and opium, so in case of exhausting suppuration we should use powerfully astringent and stimulating applications directly to the pus forming surface—astringent for the purpose of checking its formation, and stimulant for the purpose of exciting adhesive inflammation, preventing the diffusion of pus among the tissues, and guarding against its resorption by the vessels. In this latter we have an important danger to guard against, which we do not fear either in cases of hemorrhage or effusions of serum.

After having, during several years, in which erysipelas and extensive suppuration were prevalent, seen patients sink more or less rapidly in spite of other means, we determined to put the above views into practice in a case of an extremely hopeless character which came under our care.

Oliver Benson, a healthy sailor, of 31 years of age, re-

ceived, on the 9th of Nov., 1847, a severe compound fracture of the right leg, three inches above the ankle, attended with much laceration of the skin, contusion of the muscles, comminution of the bones, and rupture of the anterior tibial artery and nerve. Amputation was judged necessary, and performed immediately, about four inches below the knee, in presence of the medical class; but before this was resorted to he was already greatly exhausted from loss of blood. During the following night he was restless, and moved the stump so violently as to cause some hemorrhage. For the two succeeding days he was restless, suffering pain in the stump and various parts of the body. Pulse quick; tongue coated. On the third day the stump seemed to be nearly healed by the first intention, and was not inflamed, but on the morning of the fourth an erysipelas was perceptible around the wound. A cathartic of calomel was administered, and evaporating lotions applied to the inflamed part. The disease, however, was not checked, but extended up, on the outside, above the knee, and on the third day from its commencement, fluctuation was perceived about three inches above the knee. The abscess having opened a copious discharge of pus took place. The next day, the abscess had spread upward above the middle and upon the under side of the thigh, and the suppuration was still more abundant. Two other openings were made, and compresses and a roller applied. This did not arrest it; the erysipelas extended to the hip and side of the body, and the suppuration to the pelvis, and sloughs were drawn out from the openings. While the disease was making this progress, the symptoms became aggravated, with prostration, diarrhoea, and occasional vomiting, for which, opium, and acetate of lead, wine, capsicum, and animal broths were given to the extent of tolerance, but without effect.

At this period we made a saturated solution of alum in water, to which was added four grains of sul. copper to the ounce, and after evacuating the pus by free orifices, the whole cavity of the abscess was filled with this solution, and the orifices being closed, it was retained until the smart-



ing and pain were severe, and then allowed to escape, and pure water injected to wash it out. The roller and compresses were then applied. The immediate result was the reduction of the discharge from twenty ounces, to three or four, in twenty-four hours, and this was of healthy consistence.

The suppuration extended no further, and the progress of the disease was arrested. The injections were repeated daily for a week. The stump which had commenced to slough, assumed a healthy appearance, and the patient became speedily convalescent.

The principle upon which the practice is based, is the same as that upon which blisters are used in similar cases, viz: exciting a healthy inflammation; but the injections have the additional advantage of arresting the discharge, and producing in the walls of the abscess an adhesive process, by which its progress is arrested.

The efficacy of such injections into purulent cavities connected with scrofulous joints, has long been familiar to us, and some illustrations of its effects in such cases, were given in a former number of this journal, under the head of amputation in such cases. Our further reflections and experience have led us to recommend its use in all those cases in which the system is exhausted by purulent formations from the blood, beyond the power of the nutritive process to supply. There are great numbers of these cases in which death is not caused by disease of vital organs, but by the drain upon the system. Such are the diffuse suppurations from erysipelas, from abscesses near carious joints, from disease of the spine, as in lumbar and psoas abscesses, and in extensive deposits from purulent absorptions.

These being all either very dangerous, or entirely hopeless cases, under the best treatment hitherto pursued, the discovery of additional means of resisting them is greatly to be desired, and it is with the hope that the practice here recommended may be of this kind, that these observations are submitted to the profession.

## PART II.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE IX.

*The Dental Register of the West.* Published quarterly, by order of the Mississippi Valley Association of Dental Surgeons. Edited by James Taylor, M. D., D. D. S., of Cincinnati, O., and B. B. Brown, M. D., of St. Louis, Mo. (In exchange.)

The first number of this publication is on our table; it shows a commendable degree of interest for improvement among the Dentists of the West. Its contents appear to be well made up, and mostly of original matter, on subjects directly pertaining to the theory and practice of Dental Surgery. We are gratified to see the zeal with which our friends of the dental profession are taking hold of the subject of reform, with a view of improving the practice and elevating the standard of professional acquirements. We observe that they are disposed to discountenance quackery by disclaiming fellowship with those who are guilty of it. As they have now two colleges for educating dentists, one in the east at Baltimore, and one in the west at Cincinnati, which confer the degree of Doctor of Dental Surgery upon those who comply with the requirements, and come up to the standard, may we not hope soon to see the possession of this degree a passport to public confidence? E.

## ARTICLE X.

*The American Medical Almanac for 1848.* Containing statistics of the various Medical Colleges, Hospitals, Dispensaries, etc., of the United States, together with other information of value to the physician and student. Philadelphia: Lindsay & Blakiston. pp. 224, 18mo. (From the Publishers.)



This is a neat and convenient little volume, that furnishes an almanac convenient for office use, and at the same time furnishes an amount of statistical information in reference to medical institutions, that must be interesting to the physician, not to be found collated elsewhere. We hope the enterprising publishers may meet with sufficient encouragement to induce them to continue its publication annually hereafter. E.

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## ARTICLE XI.

*North-Western Educator.* A monthly periodical devoted to Education, Literature, and News.

We have received the first and second numbers of this periodical, the publication of which has been recently commenced in Chicago, under the editorial charge of Mr. J. L. Enos.

It is to appear monthly, containing thirty-two pages in each number, at a subscription price of one dollar per annum.

The work makes a good appearance, and its contents are, we should infer from glancing over the table, well made up.

We understand that it is the intention of the editor to devote a portion of its pages to popular physiology. By the way an excellent idea, as it is high time that this branch of science, with comparative and descriptive anatomy, should form a branch of popular education. There is no subject that could be more interesting or instructive than these, to the student of nature, for they bring him at once to the contemplation of her noblest and most perfect work.

E.

## ARTICLE XII.

*Tracts on Generation. Number 1.* Proofs that the periodic maturation and discharge of ova, are in the mammalia

and human female, independent of coition as a first condition of their propagation. By T. L. G. Bischoff, M. D., Professor of Physiology, &c., Giessen. Translated from the German by C. R. Gilman, M. D., Professor of Obstetrics, &c., College of Physicians and Surgeons, N. Y., and Theodore Tellkamp, M. D., Gebhard professor, Columbia College. pp. 65. S. S. & W. Wood, New York. (From the Publishers.)

This is an exceedingly interesting tract upon a subject that has, for the last few years, attracted a considerable amount of attention from physiologists.

A synopsis of the observations of the author was given in Vol. 2, first series, of this Journal, but as this is fuller and more in detail than the review from which it was taken, we shall extend the notice of its contents

Amongst the most important points that appear to be established by these researches, are, 1st. The actual contact of the semen masculinum with the ovum. 2d. That an ovum is discharged from the ovary, and transmitted through the fallopean tubes at each menstrual period, or the period of heat in the inferior animals.

In reference to the first of these propositions, it is sufficiently manifest from the microscopic observations of the author and others, that the spermatozoæ do reach the fallopean tubes, as they have been repeatedly found in that situation.

The following experiment and observations illustrate this point, as also the maturation of ova independent of coitus, in the interest of which will be found a sufficient reason for laying the facts a second time before our readers.

“With the intention of ascertaining to what point the male semen penetrates in bitches at the time of coition, I had kept a strong, healthy young bitch, which had never been covered. Since all depended upon my knowing, with absolute certainty, the time of the first coition, I kept her in my own house and watched her carefully. In the beginning of June, 1843, I observed that she was near the time of heat, the dogs began to follow her eagerly, and blood was discharged from the vagina; on Friday, June



9th, she did not allow herself to be covered. I then chained her up and isolated her strictly till the 11th, at three-quarters past one, when I put a dog to her, and she was covered for the first time. That this was a first coition was evident by her resistance and cries. As soon as coition was over, I extirpated the left uterus, ovary, and tube, and closed the wound by suture. I first examined the uterus, and found it quite full of spermatozoa in active motion. I intended next to examine the tube to find whether the semen had penetrated into it, but while preparing it, on laying bare the ovaries, I saw to my astonishment, that the ova which I had certainly expected to find in the Graafian Vesicle, had been already discharged from the ovary, for there were five small openings on the ovary, from one of which a little mass projected; five Graafian Vesicles had, therefore, already burst. The formation of the corpora lutea had even made some progress, commencing at the base and on the walls of the follicles; they even presented a considerable cavity filled with limpid serum, in which, however, no ovum was contained. It was now apparent to me how such a state of things had possibly led former observers, who were ignorant of the ovule, to the belief that the follicles were not yet opened. I gained at once the full conviction that they had opened, by finding the five ova near each other in the tube, about two inches from the fimbriæ. Nothing new resulted from their investigation; they had, in every respect, the characteristics which I had already seen in ova at this period of their development, and were entirely identical with the perfectly mature ovarian ovule. I looked in vain throughout the whole tube up to its uterine orifice, for spermatozoa; nowhere was a single one to be seen, and I spent so much time and care in this search, that I venture to assert most positively that the semen had not yet entered the tube. Next morning, at 10 o'clock, twenty hours later (within which time I had, in my former observations, usually found that the semen reached the ovary): I ordered this bitch to be killed. The right ovary showed five small openings, and five corpora lutea further developed, and in addition quite a large Graafian Vesicle, not yet ruptured; the tube contained five ova, which had progressed beyond its middle, and were several lines apart. Three of them were quite normal in their condition, and similar to those of yesterday, but two were plainly abnormal and abortive, the zona indistinct, the discus proligerus incompletely developed, the vitellus a small irregular mass of yolk granules. I now found spermatozoa in the tube, partly in motion,

partly not; they had, however, penetrated not more than three lines beyond the uterine orifice. The whole remaining portion of the tube contained none, nor was there any vestige of them upon or around the ova; *the ova had evidently not been fecundated.*

“I believe that this observation incontestibly proves that the ova, when matured, leave the ovary and penetrate the tube, without any influence of the coitus. That it had not taken place before the time when I observed it, may be considered as certain, in view of the great care that had been taken; that the ova had been discharged by any influence of the coitus cannot for a moment be admitted, because,

“1st. It is certain that coition does not always produce this effect, as I myself have found that after coition had been frequently repeated, the Graafian Vesicles were still closed, and,

“2d. As it cannot be imagined that the ova had, in the short space of a quarter of an hour, passed over two inches of the narrow Fallopian tube, since it requires, as we know, eight days to pass the other two or three inches. If, therefore, quite independently of coition, the ova actually leave the ovary, and pass, unfecundated, into the tube, and may remain unfecundated after a period of twenty hours—we are first to inquire how this agrees with my former observations, in which I found in bitches, six, eighteen, or twenty hours after the first coition, the Graafian Vesicles still closed, and the semen then penetrated through the whole extent of the tube, and even upon the ovary? The answer of these inquiries evidently is, that when the ova are mature, fecundation is possible within certain limits of time and space. It depends, as it appears, on the peculiarities of the animal, and on the occurrence of opportunity, whether coition is consummated while the ova are still in the ovary or not till they are already detached and have entered the tube. Were animals placed in perfectly natural circumstances, and opportunity offered for coition, it appears probable that the sexual instinct would exhibit itself before the ova were discharged. If coition be at that time consummated, the semen may penetrate through the tubes to the ovary, and this, as my observations have shown, may take place in twenty hours. Other bitches admit the dog later, or, perhaps, opportunity is wanting, the animal being, as in the case above detailed, locked up,—then the ova are none the less detached, and may even after that, if coition take place, be fecundated; how long



this is possible, I cannot say with certainty; but as bitches generally admit the male for the space of eight days, and as the first manifestations of development in the ovum, the division of the yolk, begins in the lower portion of the tube, where they are met with about the seventh or eighth day, it appears that this is the limit within which fecundation of the ovum is possible in the bitch."

The author makes numerous experiments upon rabbits, dogs, rats, &c., with a view of illustrating the formation of the corpora lutea, and the development of ova prior to the influence of fecundation upon them.

Several of these observations lead to the conclusion that fecundation generally takes place in the fallopian tubes, as the ova seem to go on in their development regularly until passed into them, and there perish unless met by the vivifying power of the semen masculinum. And, notwithstanding the spermatozoa are sometimes transmitted the whole length of the tubes, it does not necessarily follow that the fecundating influence is exerted prior to the discharge of the ovum from the Graafian Vesicle.

On this subject the author says:—

"After I had gained an insight into these phenomena, many of the results of my former experiments, which I had then considered as futile, or had differently interpreted, again engaged my attention. I had been, as I have mentioned, under the erroneous impression that coition was the cause of the discharge of the ovum from the ovary. I therefore counted always, as all my predecessors had done from the first coition; it accidentally so happened that most of the bitches which were used for these observations were probably covered before the ova were discharged. Still, I find among my previous observations, several in which I had at the time noted that though the ova were found in the upper third of the tube, I saw spermatozoa only in its lower portion. As I, however, then knew that they did penetrate through the whole length of the tube, I supposed that I had overlooked them in the upper portions, perhaps because their number had been small, or that I had not been sufficiently careful in my experiments. I am now convinced that these were cases in which the ova had been discharged before coition had taken place, and the semen had time to penetrate further in the tubes. In bitches I had only seen

spermatozoa *uniformly on the ova* in the lower third of the tube, rarely in the upper portions.

"In rabbits, where the period of heat cannot be as accurately ascertained as in bitches, and where the male generally improves the first opportunity for coition which the female will afford, it appears that the ova are not usually discharged till the semen has time to reach the ovary, this requiring, according to the observations of Barry and myself, nine or ten hours. In rabbits I have always found spermatozoa on the ova in the upper third of the tube; and with them the division of the yolk begins higher up in the tube, and the limits within which fecundation is possible are probably much shorter than in the bitch."

E.

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ARTICLE XIII.

*A System of Surgery.* By J. M. Chelius, Doctor in Medicine and Surgery, Public Professor of General and Ophthalmic Surgery, etc., etc. Translated from the German, and accompanied with additional notes and observations, by John F. South, late Professor of Surgery to the Royal College of Surgeons, and one of the Surgeons of St. Thomas' Hospital. In three volumes, pp. 942, 640, 586. Philadelphia: Lea & Blanchard. 1847. (From the Publishers.)

The appearance of an elaborate treatise on Surgery, translated from the German, is an event of rare occurrence in medical literature, and deserves to be hailed with welcome by the profession. Even if the merits of the work was less than those of "Chelius' System," it would be a valuable addition to our libraries by making us acquainted with the principles and practice of a country where surgery has lately been cultivated with great success, and of which we hear directly so little. But this work, from the limited examination we have been able to give it, seems to be the most extensive and complete system of surgical practice in the English language, unless Cooper's Surgical Dictionary may be considered an exception, and in many respects,



particularly in regard to recent improvements, this is less complete than that before us. The notes constitute indeed a large part of the work, and taken as a whole, it might be said to be almost as much English as German, and although they are in general judicious, they are not unfrequently in conflict with the text, a circumstance which, while it might be no disadvantage to the experienced surgeon, would be embarrassing to the younger student.

Truth to say, the plan so much adopted of late of adding notes to medical books, equal in volume to the original work, is liable to serious objections. It has doubtless arisen from the difficulty of embracing more than a very imperfect account of a subject within the limits proposed, and from a desire on the part of those acting as editors to supply these inevitable deficiencies, and is to this extent, commendable. But when we see three corpulent tomes of 1000 pages each, and an atlas upon operations alone, and each succeeding treatise more voluminous than the preceding, we are driven to the conclusion that surgical science has become too extensive for text books, and can only be properly treated in a series of monographs, on each individual division of the subject. Inflammations, dislocations, fractures, &c., are subjects which might profitably occupy the attention of any individual member of the profession, and a treatise on which would be abundantly large for the student. While then, we look upon the publication of such works as the present as a great improvement on those mostly in use but a few years since, it appears that a still further advance is required in a separation of the different branches of the subject, and a consequent division of the labor.

It is but justice to say that occasions for animadversion on the practice of overloading books with notes more appropriate than the present, have often presented themselves, but the precise cause of the difficulty, and the remedy, were not then so obvious to our vision as at present, for as we have already stated, these volumes form perhaps the most complete system we possess, enriched with a copious

bibliography and references to the authorities in all cases—these references when deficient in regard to American works, being completed by Dr. Norris. D. B.

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ARTICLE XIV.

*Illustrations of Medical Botany*; consisting of colored figures of the plants affording the most important articles of the Materia Medica, and descriptive letter-press. By Joseph Carson, M. D., professor of Materia Medica in the Philadelphia College of Pharmacy, Member of the American Philosophical Society, of the Academy of Natural Sciences of Philadelphia, Fellow of the College of Physicians, etc. The drawings on stone by J. H. Colen. Volume 1. Philadelphia: Robert P. Smith, 144, Chestnut Street. 1846.

We have received from the publisher a specimen number of the above work, which is now in course of publication. It is to consist of five numbers, large quarto, three of which are now published, and numbers four and five will be shortly. The colored plates are executed with great accuracy, and represent the general appearance with such a degree of correctness, that all acquainted with the plants, would, at first sight, recognize them in the representation. A work of this kind was much needed at the present time, as there is no other of the kind now in print in the United States.

This excellent work not only includes the important medical plants of our own country, but the principal ones of every climate. Each of the plates is accompanied with a botanical history of the plant, and a succinct account of its medicinal properties.

The author, who is well known to the medical profession, is every way qualified to do justice to such an undertaking. It could not have fallen into better hands.

The figures, with the accompanying text, render it most valuable for physicians, and particularly for those whose



business it is to teach this branch of medicine. The plates are of such a size, that they can be exhibited to large classes. All who are desirous of being familiar with this department of medicine, would do well to procure the work.

J. McL.

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ARTICLE XV.

*Report of the Trustees and Principal of the Indiana Asylum for the Deaf and Dumb; with an exhibit of expenditure. Presented to the General Assembly, Dec. 6th, 1847. (From Mr. Brown, Principal.)*

To our profession, which ranks second to no other class or body of men in the *performance* of works of benevolence, a document like this must possess peculiar interest, as it shows unexampled prosperity in an institution eminently benevolent in its character.

The number of pupils under instruction in this Institution, which is in Indianapolis, at the date of the report, as appears from a catalogue appended, was eighty.

The following extracts from the full and satisfactory report of Mr. Brown, the intelligent and devoted principal of the Institution, will, we are confident, prove highly interesting to our readers, in a psychological point of view, as portraying the unfortunate condition of the deaf mute, and thus showing the great achievement in the process by which the barriers that lock up his mind from a knowledge of the world are overcome, and the interrupted channels of communication provided with a substitute.

“Of the senses possessed by mutes, that of sight is, of course, the most important. Through it they gain a superficial knowledge, at least, of surrounding objects. Shut out, as they are, from intercourse with others, this knowledge comes to them in all its primitive simplicity. The more common operations of nature are observed, without inquiry as to a cause; or if the query is suggested, it is easily satisfied with the apparent or secondary. That the trees should grow, the fields be clothed in verdure, streams run on in their courses, men and animals live and move, all

seems too natural to excite a thought as to causation. That this state of things did not always exist, or that it requires an author, never enters their minds. The course of the sun, however, not unfrequently attracts their attention. Sometimes they suppose him endowed with life and motion, by the rays sent from his burning face, warming, and again scorching the earth, with the men and animals on its surface. Some think it an immense ball of fire, which a kind being above the blue vault draws up to the zenith in the morning, lets down to the west in the evening, and then at night, when men sleep, rolls round beneath the horizon to the east, ready for another day's journey through the sky. The stars seem tapers set in the arch of night, or small openings through which the glorious light beyond darts down upon us; and, strange to tell, they sometimes regard them as the bright eyes of beautiful beings of the upper sphere. The rain appears to some caused by a strong man, who dips up the waters of distant rivers, and then allows them to descend upon us. The jar of the thunder, for they are of course insensible to its sound, seems perhaps occasioned by heavy carriages, rolling rapidly over the welkin; while the lightnings are sparks and streams of fire from the forge of some huge Vulcan above. The winds they sometimes think occasioned by the united breath of a vast multitude of men, assembled in some remote place.

"Should theologians seek, in the above incoherences, the idea of a God, they will be forced to the conclusion, that mutes are naturally polytheists.

"The rights of religion are to them incomprehensible. They, perhaps, see their parents, morning and evening, bow around the family altar; they imitate the example, but kneel before an unknown God. People assemble on the Sabbath, and go through certain ceremonies; the mute knows not why, unless it be to propitiate some great being above to protect them from wild beasts, or other dangers. They see the dead followed to the tomb by weeping relatives, and a numerous throng of friends. The tears, the saddened looks, the solemn prayers, impress them with a dread of death which shrouds the grave in the most fearful terrors. That the dead ever rise to a fairer world, enters not their beclouded minds. As death seems the end of being, the soul's immortality is utterly unimagined.

"Of right and wrong, they seem to have little or no idea, previous to all education; though education, in this particular, is often commenced with some success at home. Even the right of property is not understood by many, and



I have been assured by those whose veracity could not be doubted, that they have repeatedly, before instruction, taken that which did not belong to them, without the slightest compunction of conscience. They are often found ignorant of the duty of respecting parental authority, and are surprised when they are punished for a violation. The approbation or displeasure of others, seems in many instances to be the sole rule by which they regulate their acts, without any reference to a higher principle or power. It should, however, be stated, to the credit of the parents and friends of the deaf and dumb, that they generally so far succeed in teaching the elementary principles of morals, that they come to institutions impressed with a high regard for truth and for the rights of property. It may be readily inferred from these facts, that they have not the higher idea of God as the ultimate judge of right and wrong.

“Of written law, human or divine, they are of course totally ignorant. An uneducated mute is sometimes present when a court is assembled to try a criminal. He sees the grave men busily engaged at, he knows not what. He sees the criminal confined in prison, and is utterly unable to divine the reason; or, he supposes the prisoner has incurred the hatred of the grave men, and that they take this way to manifest their anger. That this is the administration of justice, equal, even-handed right, enters not his imagination.

“Of language, in our understanding of the term, they have no idea. Signs, they have, which, in their uncouth state, may convey a few plain thoughts; but to them, letters, words, and books mean nothing. Their own names are as great mysteries as Chinese characters are to us. Even the fact that they or others have names is unknown. And, so dissimilar is the order of ideas in their imperfect gesture language from any language spoken or written, that were the words in sentences, rendered successively into signs, they would know little of the general meaning. The arrangement is just as unnatural to them, as the words in the columns of a spelling-book are to children capable of speech.”

The report proceeds to give a history of this kind of education—an account of the steps taken in teaching, which is clear and concise—a synopsis of that which is wanted to make the Institution what it should be, (and we are glad to see that he advocates its being made a free school,) and after

an account of the origin of the Institution, closes as follows:

"At the darkest hour of her trial, her finances in almost hopeless depression, while the cold, unpitying finger of scorn was beginning to point at her hitherto fair escutcheon, and the startling, though scarce-breathed whisper was heard, "Indiana will repudiate!" it was at this time our noble State remembered her unfortunate children, the Deaf and Dumb, the Lunatic, and the Blind. She took them by the hand, and scorning to take the funds which others might claim, though locked in her own treasury, she taxed her citizens to raise a special, a sacred revenue for their benefit.

"How stands the case now? Her credit is redeemed. A building, even now erected, tells how she will house and care for the poor Lunatic; already has she gathered her Blind from all quarters of her extensive domain, and presents, only four years after its organization, an Institution actually educating a greater number of Mutes, in proportion to her population, than any other State in the Union."

E.

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ARTICLE XVI.

*Wood's Quarterly Retrospect of American and Foreign Practical Medicine and Surgery.* p. 64. 8vo. New York. Richard & Geo. S. Wood. (In exchange.)

The first number of this work was received prior to the publication of our last number, but too late to receive a notice in its proper place.

It is on the plan of Braithwait's and Ranking's works, which we have already favorably noticed, but is to be fuller in reference to what appears each quarter in American medical literature.

It is a work which, from its character, being a synopsis of all that transpires in the way of improvements and discoveries in the profession generally, must be highly interesting, and as it is afforded at the low price of one dollar per annum, will probably have, as it should, a very extensive circulation.

E.



## ARTICLE XVII.

*Principles of Human Physiology, with their chief applications to Pathology, Hygiene, and Forensic Medicine.* By Wm. B. Carpenter, M. D., F. R. S., Fullerian Professor of Physiology in the Royal Institution of Great Britain, Corresponding Member of the American Philosophical Society, and of the National Institution of the United States, Lecturer on Physiology at the London Hospital, Medical School, etc. etc. Third American, from the last London Edition, with notes and additions by Meredith Clymer, M. D., Consulting Physician to the Philadelphia Hospital, late Professor of the Principles and Practice of Medicine and Clinical Medicine in the Franklin Medical College, Philadelphia, Fellow of the College of Physicians, etc. etc. etc., with three hundred and seventeen wood cuts and other illustrations. Philadelphia: Lea & Blanchard. 1847. (From the Publishers.)

Carpenter's Physiology is so well known through the medium of previous editions, that nothing need be said of the text. The additions by the editor, Dr. Clymer, naturally enhance the value of this edition, making it second to no work extant upon the subject of which it treats.

G. N. F.

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ARTICLE XVIII.

*Lectures on the Principles and Practice of Physic.* Delivered at King's College, London, by Thomas Watson, M. D., Fellow of the Royal College of Physicians, late Physician to the Middlesex Hospital, and formerly Fellow of St. John's College, Cambridge. Third American from the last London edition. Revised with additions by Francis Condie, M. D., Secretary of the College of Physicians, author of a Treatise on Diseases of Children, etc. etc. Philadelphia: Lea & Blanchard. 1847. (From the Publishers.)

Commendation of these lectures would be only reiterating the often recorded opinion of the Profession. By universal consent the work ranks among the *very best* text books in our language. The author has no theories to defend, and indulges in few speculations; his work is therefore of the kind most needed, a *practical* one. The *style* is an additional recommendation, being easy and familiar, free from pedantic efforts to "show off" by the use of high sounding words, and far-fetched terms, which but confuse the student, and excite the risibles of the sensible practitioner. Doctor Watson is a perfect hater of technicals. His object is to impart a knowledge of disease and its cure, not of the best manner of so compounding words as to make them the most difficult of pronunciation, even though at the risk of an obscurity of meaning. He would make of his hearers and readers, physicians, not pedants. We commend his example to certain writers and lecturers we wot of this side the Atlantic. Dr. Condie has, in this edition, supplied some omissions which were very important, particularly to western practitioners and students. G. N. F.

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ARTICLE XIX.

*A New Medical Dictionary*; containing an explanation of the terms in Anatomy Human and Comparative, Physiology, Practice of Medicine, Obstetrics, Surgery, Therapeutics, Materia Medica, Pharmacy, Chemistry, Botany, and Natural Philosophy, with the formulas of the principal pharmacopœias, and valuable practical articles on the treatment of disease. On the basis of Hooper and Grant. Adapted to the present state of Science, and for the use of Medical Students and the Profession. By D Pereira Gardner, M.D., Professor of Chemistry and Medical Jurisprudence in Philadelphia College of Medicine, etc. etc. 1 vol. 8vo. New York: Harper & Brothers. 1847. (From A. H. & C. Burley.)



This is a handsome volume about the size of Hooper's, got up in excellent style.

That our readers may understand the object of the publication, and the advantages it possesses over most works of its class, we allow the Editor to speak for himself, by quoting his preface entire.

"Dr. Hooper's Medical Dictionary has been, since its first appearance in London, a standard in the Profession. It has almost completely superseded the books of this class which were in circulation antecedently, and retains its original and imposing position. The publishers have not, however, overlooked the necessity of frequent emendations to keep pace with the rapid advancement of the medical sciences. The present seventh London edition has been completely revised and considerably improved by Professor Klein Grant, a gentleman of distinguished medical celebrity.

"Actuated by the same liberal motives, the American publishers have determined to keep pace with the improvements in the medical profession, and hence the republication of this work in a new and more compendious form. Adopting the last edition of the English work as a basis, the editor has bent his exertions, in this revision, to the production of a dictionary entirely adapted to the use of medical students, while he has endeavored to retain all the practical matter of the previous writers, so as to make it equally invaluable to the general practitioner. He has made an addition of many thousand articles, and more especially in the departments of chemistry, physiology, surgery, and the practice of medicine; nor has he lost any opportunity of giving notoriety to numerous American improvements, wherever the limits of the article have permitted."

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#### ARTICLE XX.

*A Treatise on the Diseases of the Air Passages*; comprising an inquiry into the history, pathology, causes and treatment of those affections of the throat, called bronchitis, chronic laryngitis, clergyman's sore throat, etc. etc. By Horace Green, M. D., formerly president and professor

of the theory and practice of medicine in the Castleton Medical College, &c. &c. New York and London. 1846. pp. 272. 8vo.

We have omitted to notice this work which has been for more than a year before the public, until the present time, being, in a great measure, influenced by the notices of the medical press, which not being, in several instances, favorable, prevented us from giving it an examination. But having recently perused it, we were favorably disappointed in regard to its merits, and think it deserving of the careful attention of practical physicians.

It is, so to speak, a book of one idea; the affections enumerated in the title page. being treated with cauterization of the orifice and internal surface of the larynx with nit. arg., in dose of about forty grains of the pure crystals to the ounce of water. The simple mention of such an operation is sufficient to excite the surprise of those accustomed to think that the slightest contact of water even, will excite violent spasm and closure of the glottis, and it requires some reflection to induce us to try it, and actual experience to convince us that the application of the above named solution is attended with and followed by less irritation than is the result of the contact of the simplest fluid. Such, however, seems to be the fact, and having used a solution of half the above named strength to the orifice or internal surface of the larynx, in three instances, we can testify that it was followed by no considerable irritation.

But if safe, is it useful? In answer to this question, Dr. Green gives the reports of a large number of cases treated in this way, which go far to establish the affirmative of the question, without, however, specifying the circumstances in which it is likely to be useful, or indicating any circumstances in which its use might be followed by inconvenient effects.

The following extract will show the manner in which the application is to be made.

*“Method of applying the solution.”*—In the treatment of laryngeal disease, by the direct application of the nitrate of



silver, to the diseased surface, I have employed, ordinarily, a solution of this substance, of the strength of from two to four scruples of the nitrate, to an ounce of distilled water. When, however, there are found extensive ulcerations of the epiglottis, or, about the opening of the larynx—ulcerations which it is desirable to arrest at once, I have not hesitated to apply directly, to the diseased parts, a solution of double the strength of the last named. But one or two applications only, of a medicine of this power should be made, at one time; ordinarily, however extensive the lesions may be, it will not be necessary to employ a solution of greater strength than one composed of four scruples of the salt, to an ounce of water. On the other hand, it has been found, that one of less strength than of from forty to fifty grains of the nitrate to the ounce of fluid, will have but little effect upon a diseased mucous surface, where ulcerations exist.

“In cases in which it becomes necessary to cauterize the interior of the laryngeal cavity, the aperture of the glottis should not be passed at once; the part should be *educated*, by applying the solution daily, for several days, to the faucial and pharyngeal region; to the epiglottis, and about the opening of the glottis.

“Proceeding in this manner, that exquisite sensibility which belongs to the lips of the glottis, is, in a good degree, overcome, and the instrument may then be passed into the larynx, without producing half the amount of that irritation, which its introduction below the epiglottis would have awakened at first.

“The instrument which I have always employed for making direct medicinal applications into the cavity of the larynx, is one composed of whalebone about ten inches in length, (with or without the handle as represented in the plate) curved at one end, to which is securely attached a small, round piece of fine sponge.

“The extent to which the rod is bent, must be varied according to circumstances, for the opening of the glottis is situated much deeper in some throats, than in others; but the curve which I have found suited to the greatest number of cases, is one which will form the arc of one quarter of a circle, whose diameter is four inches. (See Plate VII. Fig. I.)

“The instrument being prepared, and the patient’s mouth opened wide, and the tongue depressed, the sponge is dipped into the solution to be applied, and being carried over the top of the epiglottis, and on the laryngeal face of

this cartilage, is suddenly pressed downwards and forwards, through the aperture of the glottis into the laryngeal cavity.

“This operation is followed by a momentary spasm of the glottis, by which the fluid is discharged from the sponge, and is brought into immediate contact with the diseased surface.

“Every physician who has been present when the operation has been performed, (and a large number have witnessed it from time to time,) has manifested much surprise on observing how little irritation has been produced by the introduction of the sponge.”

Time and experience will be required to determine the value of the treatment, for if it has been proposed and used by Trousseau and Belloc, it has not been so generally applied as to have its value properly tested. In the mean time, it seems to us highly probable that its use in many cases of chronic inflammation of the throat, is worthy of a careful trial.

D. B.



## PART III.—SELECTIONS.

1. *On the effects of Bloodletting on the Young Subject.* By John B. Beck, M. D., Professor of Materia Medica and Medical Jurisprudence, in the College of Physicians and Surgeons of New York.

There is no subject, perhaps, so deeply interesting to the practical physician, as the effects of bloodletting on the human system, and the various uses to which it may be applied in the management of disease. In promptness and power, it exceeds all other agents, and its capacity for doing good or harm is proportionally great. It is resorted to, also, at every period of life, and by some it is even prescribed with equal, if not more freedom in children than in adults. It becomes, then, a question of the greatest moment to determine, if possible, whether the age of the patient has any influence in modifying its effects. And this is the subject upon which I propose to make a few remarks.

That the youngest child can sustain the loss of blood within certain limits, as well as the adult, is manifest from a variety of facts. Thus children are sometimes born in a state of asphyxia from apoplexy. On dividing the cord and letting a moderate quantity of blood flow, respiration is established, and every thing does well. Again, not unfrequently from not applying the ligature sufficiently tight around the cord, or from the cord contracting and thus loosening the ligature, hemorrhage takes place, and yet no injurious consequences result. Besides this, we know that in cases of disease, the youngest children may be bled, not merely without injury, but with advantage. When, however, the loss of blood is carried beyond these limits, important peculiarities are observed, showing a difference in the effects produced in the young subject, from those in the adult.

*The first peculiarity is, that the young subject does not bear the loss of considerable quantities of blood, so well as the adult.* I am not aware that children fall into a state of syncope from the loss of blood more readily than adults; but when syncope does come on, it is very certain that they do not recover from it so readily, and they are always in more or less danger. In the adult, syncope from the loss of blood, unless the quantity be very large, is a state which, as a general rule, is attended with little or no danger, and from

which the patient speedily recovers. Hence it is that physicians are continually in the habit of inducing it in the management of certain forms of disease, and not merely with impunity, but evident advantage. In the young subject it is not so, and it is a state always attended with hazard. If the child recover from it, it does so very slowly, and every now and then it sinks irretrievably under its influence. That this is a fact, is confirmed by abundant testimony, on the part of those who have taken the trouble to make the necessary observations. Dr. Marshall Hall, in speaking on this subject, says, "In infancy, the state of syncope (from the loss of blood) is a state of danger."\* Evanson and Maunsell remark, "As a general rule, it is well to stop the flow of blood when decided pallor takes place, without waiting for actual fainting, from which children do not quickly recover."† Armstrong says, "Do not bleed to actual syncope in children, as they are apt to fall into convulsions, of which they may die. Children do not recruit from very large bleedings like adults."‡ Dr. Ryan observes, "The abstraction of blood in cases of infants and children until fainting occurs, is the worst practice that can be imagined, as convulsions or death may be produced."§ Indeed, the general fact admits of no question; and the reason is obvious enough, if we reflect for a moment upon the nature of the agent, and at the same time compare it with the susceptibility of the subject. Carried to the point of syncope, bloodletting is one of the most direct, speedy, and profound sedatives that we have in our possession. In a few moments, it reduces the subject from a state of perfect health or the high excitement of disease, to a state of temporary death. Now it is very evident that the capability of recovering from such a state, must be just in proportion to the powers of the constitution. From the very nature of its organization, therefore, it is obvious that the system of the child cannot sustain so well as the adult a shock so sudden and powerful as this.

*The second peculiarity attending the loss of blood in the young subject, is, that the nervous system is more powerfully affected than in the adult.* The evidence of this is, that convulsions and coma more frequently occur after the loss of blood in children, than in adults. In the adult, both these

\* Researches on the Morbid and Curative Effects of the Loss of Blood, by M. Hall, M. D., p. 87.

† On the Management of Diseases of Children, p. 107.

‡ Lectures, &c., by John Armstrong, M. D., p. 387.

§ Manual of Midwifery, by M. Ryan, M. D., p. 475.



occurrences sometimes take place, more especially convulsions. Thus, for example, puerperal hemorrhage is not unfrequently followed by them. I have witnessed the same thing in a gentleman of irritable habits, who had bled too largely from the arm. He had lost about a quart of blood, when incipient syncope came on, followed immediately by a violent convulsion. In children, however, these occurrences are much more common; and the reason, no doubt, is the greater predominance, as well as the impressibility of the nervous system. A great variety of causes, we know, will induce convulsions in a child, and among these exhaustion is a very common one. With regard to coma, too, this may be brought on in children by any debilitating cause. A striking illustration of this we see now and then in diarrhœa, which has been continued too long. In these cases, the brain becomes suddenly affected, and a state of stupor or coma is induced, which not unfrequently is mistaken for Hydrocephalus. The same thing occurs from the loss of too much blood.

*The third peculiarity is, that the repetition of bloodletting is not so well borne by the child as the adult.* A child of good constitution and ordinary strength, may bear a first bleeding, perhaps quite as well as an adult. Under particular circumstances, too, of disease, a second may be borne very well. Beyond this, as a general rule, it will be found, I think, that the child cannot well sustain the loss of blood. On this point, I believe, there is little or no difference of opinion among men of judgment and observation. Dr. John Clarke says, "Very young children bear very well the loss of blood even to fainting, once or twice, but they ill bear a more frequent repetition of bleeding. Their powers sink under it, and by no art can it be replaced."\* Marshall Hall says, "In infancy, a second or third bloodletting is borne with difficulty."† Evanson and Maunsell say, "Repetitions of bloodletting are not well borne by the child."‡

*The fourth peculiarity is, that the effects of local bloodletting, especially leeching, are different upon the child, from what they are upon the adult.* In the adult, the effect of leeching is in a great measure local, and it is not usually resorted to until after general bloodletting is considered inadmissible. In a child, on the contrary, it produces very much the same effect as a general bleeding. From the

\* Commentaries on the Diseases of Children, p. 103.

† Researches on the Loss of Blood, p. 87.

‡ On the Diseases of Children, p. 108.

greater vascularity of the skin, too, the amount of blood lost by a leech, applied to a young subject, is much greater than in the adult, and it is frequently much more difficult to arrest the hemorrhage from it. The general effect, then, of leeching on the young subject, is much greater than in the adult. Hence it is that cases are so frequently occurring in which children die from leeching. Of this we have numerous cases on record. Dr. Christison says, "I have twice known children bleed to death in hospital practice, the nurse having labored under a common prejudice among their craft, that leech-bites cannot bleed too much."\* Pereira states, that "in two cases of infants, I have seen exhaustion with insufficient reaction, consequent on hemorrhage after a leech-bite, terminate fatally."† Ryan says, "The loss of blood from a single leech-bite has caused the death of a child."‡

From the foregoing, then, it would seem, that although a child may bear the loss of certain quantities of blood, perhaps quite as well as the adult, when carried beyond this, they do not bear it so well, nor do they bear the repeated and continued loss of blood so well; and under these circumstances, dangerous and even fatal consequences are apt to ensue. In other words, bloodletting is an agent which operates with more power, and is attended with more danger in the child than in the adult.

If all this be so, then some conclusions may be drawn with regard to the practical application of this agent, which, to the young practitioner at least, may be of some importance.

1. Great caution should be exercised in bleeding children to the point of syncope. If the state of syncope be attended with the danger already alluded to, it is very certain that nothing can justify us in producing it, unless it be determined that it is essential to the management and cure of the case. Now, that in most cases, even of decided inflammation, it is not necessary to carry bloodletting to this extent, is very certain. We know that it is not so in the adult, and it evidently cannot be so in the child. As a general rule, therefore, it cannot be required. By some high authorities, however, it is supposed that under certain conditions of diseased action, the safety of the patient depends upon the production of syncope. Thus, for example, in

\* Dispensatory, p. 492.

† *Materia Medica*, Vol. II., p. 769.

‡ *Manual of Midwifery*, p. 475.



croup, bleeding ad deliquium has been insisted upon by the late Dr. Bayley, of New York,\* Dr. Dick, of Alexandria,† and Dr. Ferriar, of Manchester. The latter especially speaks of it as “the essential point of the cure, without which no relief can be effected.”‡ If in any disease the practice be justifiable, it certainly is in this, and it cannot be denied, that in a great number of instances, it has been resorted to with safety. Notwithstanding this, general experience has abundantly established the fact, that even here it is not necessary, and that all the beneficially sedative effects of the remedy may be obtained without going to this extent. On this point there appears to be, at the present time, a pretty general concurrence of opinion among enlightened practitioners, and the rule of practice ought to be, *never* in any case to bleed to syncope, but to stop as soon as paleness of the lips and cheeks comes on. In this way, all the good of blood-letting is secured, while the risks of syncope are avoided.

2. To determine the precise amount of blood proper to be drawn, is a matter of much greater nicety, and involves more serious consequences in the child, than in the adult. In the adult, the loss of a little more blood than is necessary, as a general rule, is a matter of no very great consequence. In the child, on the contrary, it may prove fatal. In the adult, too, we have means of judging how far it ought to be carried, which we have not in the child. Thus, for example, the pulse, which in the adult is so valuable a guide in these cases, cannot be depended upon at all in the child. It is always, therefore, a very nice and difficult problem in practical medicine, how to adjust properly in a child the amount of blood necessary to be drawn, to the exact wants of the case. Now there are only two ways in which this can be done. The first is, by fixing upon a certain amount as suitable to different ages. The second is, to judge by the actual effects produced at the time of taking the blood. With regard to the first of these modes, it is evident that it must be a very unsatisfactory guide, if we recollect that no two constitutions are precisely alike, and that there is every difference in the capacity of different systems, even in the same disease, to bear the loss of blood. Then, again, the same disease exists in different degrees of violence, and of course requires a modification in the amount of de-

\* New York Medical Repository, vol. 12, p. 331.

† Barton's Med. and Phys. Jour.

‡ Medical Histories and Reflections, by JOHN FERRIAR, M. D., p. 371. Am. Edition.

pletion. Besides all this, different diseases do not require, and cannot tolerate the same loss of blood. A general standard, then, founded upon the age of the patient, is really good for nothing, except as a mere approximation. In individual cases, it must be inapplicable. Hence it is, that all those standards laid down by authors differ so much from one another, and must necessarily do so. If blood be taken by *leeches*, the difficulty is still further increased, from the circumstance that the desired quantity can hardly ever be obtained with any degree of precision: if it is so, it is purely by accident. That this must be so is evident, if we recollect the variable quantities of blood drawn by the leeches themselves, and more especially the greater differences in the after-bleedings. It is not yet settled, I believe, exactly how much blood a leech will draw. Christison says, "Twice as much blood may be usually drawn by fomentations, as by the suction of the leech. A single leech, when applied successfully, may thus be held to draw from first to last, *about half an ounce of blood on an average.*"\* According to Evanson and Maunsell, "the quantity of blood obtained by a good leech, allowed to bleed for half an hour, may be estimated *at one ounce.*"† Mr. Pereira says, "I believe *four drachms* to be the maximum. On an average, I do not think we ought to estimate it at more than *a drachm and a half.*"‡ i. e., the quantity taken by the leech itself, without reference to the after-bleeding. Now the fact is, it is impossible to specify the amount of blood drawn, either by the leech itself, or in consequence of the subsequent bleedings. Leeches differ in their size very greatly, and there must, of course, be a great difference in the quantity of blood they are capable of taking. Then, again, there is every difference in the after-bleedings, depending on the vascularity of the skin, the part of the body to which they are applied, and various other circumstances. From all this, it is evident how unsafe it must be to draw blood from a child according to any average standard.

With regard to the second mode, that of judging of the extent to which it should be carried by the effects produced at the time: in many cases this answers exceedingly well. In inflammatory complaints, where the full effect of the loss of blood may be necessary, the rule can be satisfactorily applied, and the best plan is to bleed in the erect posture,

\* Dispensatory, p. 492.

† Practical Treatise on Children, &c., p. 106.

‡ Materia Medica, vol. 2, p. 769.



until pallor of the face comes on, without producing actual syncope. In the adult, according to Marshall Hall, the production of actual syncope constitutes the criterion as to the exact amount which the case requires, as well as of the capacity of the system to bear the loss of blood, and he therefore recommends this as the rule for the due administration of the remedy. Now, that this will not answer, must be obvious to every one. Every practitioner knows that cases are continually occurring, in which actual syncope comes on after the loss of a few ounces of blood, when large quantities are afterwards required to be drawn. In children, of course, the rule cannot be applicable. In them, the loss of so much blood as to bring on only approaching syncope might not only be unnecessary, but be attended with danger. From all this, then, it would appear that we are not in possession of any precise mode of determining how much blood ought in all cases to be taken in children; and this shows the necessity of great caution and the exercise of sound judgment, in the use of the remedy.

3. From the uncertainty in estimating the quantity of blood lost by leeches, and the dangers attending the loss of too much from them in children, too great caution cannot be exercised in their use. From the manner in which leeches are ordered by some physicians, in the disease of children, one would be led to suppose that no harm could ever result from them. From the ease, too, with which they may be prescribed, and the appearance of energy which it gives to the practitioner, it is to be feared that not unfrequently they are used without being actually necessary, and even when necessary, they are suffered to draw blood without sufficient regard to the quantity which may be lost. Now it should always be recollected, as already stated, that leeches operate differently on the child from what they do on the adult. In the latter, they are, in a great measure, local in their action, and may be, and generally are used, when general bleeding is contra-indicated. In the child, on the contrary, they act in the same way as general bleeding. Their sedative effects, therefore, upon the constitution of the child, are much greater; and if suffered to bleed beyond a certain limit, they endanger life. On these accounts it is more necessary to be cautious in the use of them in children, than in adults. It is not my intention to go into any particulars in relation to the mode of conducting the process of leeching. There are a few points, however, of a practical character, connected with this subject, which

may not be unworthy of notice. 1. When leeches are applied to a child, the patient should always be placed in the erect posture. The same rule, indeed, should be observed in whatever way blood is drawn. If it be a fact that leeches act like general bloodletting upon the child, the propriety of this rule must be obvious; and it is the more necessary to insist upon it, because it is hardly ever observed. As soon as any paleness of the lips or face appears, the child should be placed in the recumbent posture, and the bleeding arrested. 2. When leeches are applied to a child, the patient should never be left until the flow of blood is completely stopped. 3. Leeches should never be applied at bed-time, and suffered to bleed during the night. In this way, the patient has, in more cases than one, bled to death. If applied late at night, they should be watched just as in the day-time. 4. As a general rule, leeches should not be applied to soft parts destitute of support from underneath, in consequence of the difficulty of making pressure sufficient to arrest the hemorrhage. The importance of this was first noticed by Dr. Cheyne, who advises them to be applied in croup, not to the neck itself, but over the clavicle, sternum, or ribs.\* 5. Leeches sometimes open into arteries and dangerous hemorrhage has ensued from this cause. A case of this kind happened, in which the temporal artery was thus opened, and Sir Astley Cooper was obliged to divide the artery before the hemorrhage could be arrested.† In all cases, therefore, the progress of the bleeding should be carefully watched.

4. If bloodletting be so profound a sedative to children, it is evident that it is capable of doing a vast deal of harm in cases unsuited to its use, and that it requires a very nice discrimination of the character of the case, before it can be used with safety. This may appear very commonplace; but, commonplace as it is, it is to be feared that it is not sufficiently borne in mind in actual practice. The presence of inflammation or congestion is generally considered a condition justifying and requiring a resort to bloodletting, and so indeed, as a general rule, it is; but it is not so universally. Thus, for example, the inflammation attending scarlatina does not usually require or bear well the loss of blood; and there can be no question that, in this complaint, many a child has been sacrificed by a resort to this remedy.

\* Pathology of the Larynx and Bronchia, by John Cheyne, M. D., p. 57.

† Johnson's Med. Chir. Rev., Vol. 9, p. 71.



Then, again, symptoms analagous to those produced by inflammation or congestion result from a cause directly the opposite, viz: irritation or mere exhaustion. Illustrations of this we see frequently in affections of the head in children, convulsions, &c. In these cases, if the cause of the difficulty be mistaken, and depletion be resorted to, the result may be fatal. All this shows that, before bloodletting is used in children, the nature of the case should be investigated more nicely even than in the adult.

5. In the use of bloodletting in the young subject, especial regard should be had to their constitutions, as well as their mode of living. No principle is better understood, or ought to be so, even in adults, than that in the use of debilitating remedies, due regard should be had to the powers of the system. No practice is safe which does not take into consideration the relative capacity of the system to bear them; otherwise the remedies may be more fatal than the disease for which they are prescribed. Now we know that in the adult there is every difference in this respect. In the management of the same disease accordingly in different individuals, a very different course of treatment is necessary, if not in the remedies themselves, at least in the extent to which they are carried. In the young subject this is still more necessary. Children whose constitutions are naturally feeble and vicious, or have been enfeebled by debilitating causes, such as poor diet, confined air, &c., sink very readily under the influence of depressing remedies. In these bloodletting is badly borne, and should never be resorted to unless absolutely necessary, and then in moderate quantities.

6. Great caution should be exercised in the repetition of bloodletting. After what has been already said in relation to the effects of repeated bloodletting on the young subject, I should not again allude to it, were it not to notice the opinions of an eminent authority. Dr. Rush, in his "Defence of Bloodletting," makes the following statement: "I could mention many more instances in which bloodletting has snatched from the grave, children under three or four months old, by being used three to five times in the ordinary course of their acute diseases."\* That the children alluded to by Dr. Rush survived this treatment I do not doubt; but that these repeated bloodlettings were necessary I can hardly believe. At any rate, a practice like this, if

\* Med. Obs. and Inqs., vol. 4, p. 300.

generally adopted, would, in my humble opinion, end in the most disastrous results.

In concluding this paper, I trust that it may not be thought that I am opposed to bloodletting in the diseases of children. The physician who discards this agent, understands but poorly his profession or the duty which he owes his patients. The proper use of a remedy, however, is one thing, the abuse of it is another; and I must express the opinion, founded on no small observation, that it is frequently resorted to in children when it is unnecessary—when necessary, it is often carried too far—and that in its general use, there is frequently an absence of precision and care, which in many cases renders it a most dangerous remedy. With regard to the use of bloodletting generally in this country, there can be no doubt that the authority of Dr. Rush has exerted an influence the most deleterious. That it should have done so is not surprising. Living at a time when medicine was yet in its infancy among us—at the head of the oldest and most influential of our medical schools, and attracting by his enthusiasm and his eloquence a large proportion of the students of the country, his sway for a series of years was unlimited, and his sanguinary precepts and his still more sanguinary practice\*

\* To justify the language used above, and which may be considered too strong by some, let me make a quotation or two from Dr. Rush's celebrated "Defence of Bloodletting." "Bleeding should be continued while the symptoms which first indicated it continue, should it be until four-fifths of the blood contained in the body are drawn away." Med. Obs. and Inq. vol. 4, p. 353. The amount of blood in an adult is estimated at about 32 lbs. Four-fifths is over 24 lbs.

Again, in enumerating the advantages of bloodletting, he says: "In cases where bleeding does not cure, it may be used with advantage as a *palliative* remedy. Many diseases induce death in a full and highly excited state of the system. Here opium does harm, while bleeding affords certain relief. It belongs to this remedy in such cases, to save pain, to relieve convulsions, to compose the mind, to protract the use of reason, to induce sleep, and thus to smooth the passage out of life." Med. Obs. and Inqs., vol. 4, p. 357. In other words, if I understand him, one of the advantages of bleeding is, that it makes persons die easily! This reminds me of a melancholy case which I once witnessed. A young gentleman, about eighteen years of age, had been suffering about three months under organic disease of the brain. During this period he had been subjected to every kind of treatment. Bloodletting, emetics, cathartics, mercurials, tonics, &c., had all been used in succession, but without arresting at all the progress of the disease, and he had now become stone blind, was paralytic, and reduced to the extremest state of emaciation and debility. In short, he was barely kept alive by the use of stimulants. In this state of things a friendly doctor happened to drop in, and expressed the opinion that the disease was inflammation of the brain, and that a good bleeding would relieve him. Notwithstanding the urgent remonstrances of the attending phy-



were speedily diffused from one end of the country to the other. Although sad experience has long since exposed the fallacy, as well as the danger of his doctrines, yet many of the evil consequences of them are still to be met with; and not the least of these, it appears to me, is the opportunity which they have, indirectly at least, afforded for the prevalence of quackery. It is a part of our nature to fly from one extreme to another. When an error is once exposed, we are apt to go immediately to its opposite, inferring that what is the reverse of wrong must necessarily be right; and so it has been in regard to bloodletting. The public having been made acquainted with the evils of the practice of Dr. Rush, a prejudice, if not general, at least very extensive, has been created against the remedy itself, and empirics, always ready to play upon the weaknesses and prejudices of the community, have seized upon it for the mere purposes of traffic. Accordingly, the land is now filled with a set of men who pretend to practise medicine, without resorting, not merely to bloodletting, but many of the other remedies sanctioned by long and tried experience. And what is melancholy, but true, they find a ready sympathy in a large portion of the community. Whether I am too severe in attributing the popular empiricism of the day to the influence of Dr. Rush, must be left to the judgment of the profession. One thing, however, is very certain, and which we see illustrated every day. Whenever a person has been overtaxed with active medicine, he is apt to discard all belief in medicine generally, and he is then ready to fall into any absurdity. It is with medicine as it is with religion. Superstition once thrown off, infidelity follows, and the result in both cases is the same. Calm reflection and rational inquiry are out of the question, and boasted independence speedily becomes the easy prey of the knave and the empiric.

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2. *Medical Staff of the United States Army.*—The medical corps of the army has gained unfading laurels, not only by devotion and courage in the strict line of their profession

sician, that the result would be almost immediate death, the idea took with his friends, and he was bled by the doctor who suggested the practice. As might have been expected, in about six hours he was a corpse, and the great consolation seemed to be that he died so easily! Verily, on becoming acquainted with such practice, one would be tempted to believe that the Emperor Nero must have been a very tender-hearted man in condemning Seneca to so pleasant a mode of terminating his existence as bleeding to death. For the particulars see the *Annals of Tacitus*, Book 15, Sec. 60.

but also, when occasion offered, of using the sword as well as the amputating knife. Among many instances of great gallantry, we may mention that of Assistant Surgeon Roberts, who, in the thickest of the fight at the storming of Molino del Rey, meeting with a company, all of whose officers had been cut down, placed himself at its head, and received his death wound whilst leading the men to victory. —*Medical News and Library.*

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3. *Epidemic Cholera.*—This epidemic is steadily advancing westward, by the same route which it pursued in 1831, and at the last accounts had reached Central and Southern Russia. Without counting Georgia, Caucasus, and the country of the Cossacks of the Black Sea, it already reigns in sixteen governments. On the 30th of October it broke out at Moscow. The disease has also broken out anew in Persia. Three cases are said to have occurred at Paris; two of these did not present any very characteristic symptoms, but in the third there were cyanosis, rice-water dejections, &c.—*Ibid.*

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4. *A Case of Four Children at a Birth, complicated with hemorrhage.* By Mr. John M. Donnell, Student of Medicine in the University of Louisville.

On the 6th of February last, I was called to visit Mrs. D., whom I found laboring under an attack of pneumonia. The disease yielded to active treatment, convalescence being established in the course of five or six days. On my first visit I was informed that the patient was six months advanced in utero-gestation; from her unusual size, I was led to suppose that her confinement would probably take place in less than a fortnight.

After she recovered, I heard nothing from her until the 31st of May, when I was called to visit her. On my arrival I learned that one child was already born—a foot presentation; but on examining the patient, I found that there was another, and that the right shoulder was the presenting part. I ruptured the membranes, turned, and delivered by the feet. Another pain ensued in a short time, and a third child was delivered—a vertex presentation. At this period an alarming hemorrhage took place, for which I administered a large dose of tincture of ergot, and, being compelled to consult the safety of the mother, tied and divided the cords. Fortunately for my patient, the hemorrhage ceased very soon, and by the time it had done so I



was satisfied of there being still another child, and that the vertex was presenting. I ruptured the membranes, expecting that the child would be speedily delivered; but after waiting for a pain and making a second examination per vaginum, I found the right hand had descended before the head. This I immediately returned, and the uterus being stimulated to a vigorous action by the introduction of the hand, the head was thrown from the brim of the pelvis, and descended as in a natural presentation, the child being born in a short time. Hemorrhage again took place to a considerable extent at this stage, but on the administration of another dose of ergot, and the use of friction over the abdomen, uterine contractions came on, and the flooding ceased.

After waiting about fifteen minutes, one of the placentas was thrown off, to which were attached three of the umbilical cords; it was very large, having on its foetal surface two distinct chambers. After waiting nearly an hour longer, I was under the necessity of introducing my hand and detaching the second one from near the fundus of the uterus; the attachment was slight. Tonic contraction of the uterus occurring, my patient was put to bed in safety, but, as might be expected, very much exhausted. She recovered rapidly, and, when I called to see the children, three weeks afterwards, was able to attend to her household duties. It may be proper to remark that the first child floated in its own waters, and likewise the last; the second and third floated together.

The following is the weight of each child, taken in the order of birth: 1st, a girl, 6 pounds; 2d, a girl,  $4\frac{3}{4}$  pounds; 3d, a girl,  $2\frac{1}{4}$  pounds; 4th, a boy,  $6\frac{1}{2}$  pounds, making in all  $19\frac{1}{2}$  pounds. The children were all well formed, and five weeks after birth were living and hearty. The mother is thirty-three years of age, and is the mother of ten children, including the last four. The father is a robust man, about forty years old.

*Postscript.*—Since writing the above, I have learned that the smallest child died about five weeks after its birth, probably from overfeeding.

*Franklin, Illinois, Nov. 5, 1847.*

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#### MEMORIAL TO CONGRESS.

The great importance to the profession of Medicine, and to the afflicted who are subjects of treatment, of the matter contained in the following memorial to Congress, will,

we hope, induce physicians generally to copy, procure signatures to, and forward it to their respective Representatives and Senators in Congress.

The proceedings of the New York College of Pharmacy in our last number, under the head of "Adulterations of Medicine," sets forth more fully the important necessity of some action on this behalf.

It is respectfully suggested that the Medical Societies in their organized capacities, might do much towards forwarding the objects of the memorial, which we take from the *N. Y. Journal of Medicine*.

[MEMORIAL.]

*To the Honorable the Senate and House of Representatives:*

The Memorial of the College of Pharmacy, of the City of New York, respectfully represents:

That large quantities of sophisticated and misnamed Chemicals and Pharmaceutical preparations are daily imported, not only to the injury of the Custom House revenue, and of the honest importer, but of dangerous effect upon the health and lives of all who require the aid of medicines such as they purport to be, throughout the country.

That with some unprincipled foreign manufacturers, aided and abetted by dealers of a kindred stamp in this country, it is a regular and systematic business to make different qualities of various medical preparations for the American market—the better kinds for the Atlantic cities, and others very much inferior "for the West," meaning thereby, our Western States. The latter are generally altogether unlike what they purport to be, are quoted at about half prices, and are unfit for any use whatever.

That of an almost indefinite number of spurious and misnamed articles, may be specified Iodide of Potassium, for which the Bromide is substituted, in whole or in part, and other salts, of an entirely different character, are also mixed in large proportions.

Blue Pill comes to us containing from 10 down to  $7\frac{1}{2}$  per cent. of Mercury, (the officinal proportion being  $33\frac{1}{3}$  per cent.) mixed with blue clay and Prussian blue, to give it density and color—the following being the composition, by the analysis of our Professor Reid, of a lot which passed the Custom House about the first of August.



Mercury,	-	-	-	-	7.5
Earthy clay,	-	-	-	-	27.0
Prussian blue, used in coloring,	-	-	-	-	1.5
Sand in combination with the clay,	-	-	-	-	2.0
Soluble saccharine matters,	-	-	-	-	34.0
Insoluble organic matters,	-	-	-	-	12.0
Water,	-	-	-	-	16.0
					<hr/>
					100.0

Very large quantities of Rhubarb, much decayed, the better parts of which are dark colored, with scarcely any taste or smell, having probably been exhausted to make extract, come from England, invoiced there from  $1\frac{1}{2}$  to 3 pence sterling per lb.—entirely worthless trash. It is intended and used for powdering, color being given to it by tumeric, etc.

The article called Oxyd of Zinc on the English labels, is generally *Carbonate* of Zinc, being imported at a price which precludes the possibility of honest preparation.

All that is received under the name of Milk of Sulphur, except small lots expressly ordered from some manufacturing establishment of honorable character, contains from 80 to 95 per cent of Sulphate of Lime, (Plaster of Paris.)

Many of the foreign Extracts are not what they purport to be, and are entirely worthless as medicines.

Opium is often invoiced at one third the value of good quality, and is found upon examination not to be worth even that. The same may be said of Scammony.

The Essential Oils generally, the Salts of Quinine, Morphine, and all the more costly chemicals, are greatly adulterated.

These are some of the most important that come to us from abroad. Upon them the Physician depends, in many cases, for his success in controlling disease, we need hardly say, with frequent disappointment, the sufferings of the sick being protracted, other complications of disorder allowed to supervene, and life itself often sacrificed.

That numerous instances of frauds, of the kind here spoken of, have been publicly exposed in the newspapers, by the authority of this College. Such exposures have undoubtedly proved of excellent service, so far as related to each particular fraud published and the extent reached by the publication, but this unpleasant and burthensome duty is greatly inadequate to the correction of the evil.

Your memorialists therefore pray your Honorable Bodies

that a law may be enacted, declaring that all imported articles intended for medical use, which may appear to the proper Custom House Officer to be spurious, counterfeited, or adulterated, shall be subject to competent inspection, and if found to be of base character, confiscated and destroyed.

And your memorialists, &c.

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*Baptistæ Tinctoria*.—DEAR DOCTOR: The following being scarcely worth a place as a separate article in your Journal, will answer as a note to your article on the *Sophora Tinctoria*.

Respectfully yours,  
JAMES FOUNTAIN.

Taking a deep interest in the Medical Botany of my native country, I presume the following rough sketch will not be uninteresting to my fellow country physicians.

The plant commonly called Indigo Weed, the *Baptista*, or *Sophora Tinctoria* of Linn., grows so abundantly all over the country, is so easily recognised, and possesses such active properties, that it is not a little surprising that it has received so little attention.

About 30 years ago Dr. Thatcher noticed the plant in his Dispensatory, as being useful in cases of gangrene from deficiency of vital power, and in some other affections proceeding from the same cause.

In June, 1837, I was called to see Jacob Post, æt. 74, of an infirm habit. He had been a free liver, but was infirm from age, and was troubled with almost constant diarrhœa. He had a large purple patch on his leg, just above the outer ankle of his left leg. His foot was cold. He was not feverish, nor otherwise seemingly more indisposed than usual. He had no pain in his leg or foot, but only a slight soreness. In a few days his foot was spotted over with similar patches, and finally they all coalesced. The cuticle shortly peeled off, and the whole foot was covered over with a soft, black, grumous coating.

Warm stimulants and astringents were freely used externally, and tonics and opiates internally, but to no purpose; the gangrene spread gradually but slowly upwards, so that by the end of the month his leg as far up as the middle of the calf, had become one putrid mass, with no cognisable line of arrest, but gradually losing its aspect upwards.

His leg had now become so intolerably offensive, that I



determined to remove it, to rid the family of the insupportable stench, for I had not entertained the least hope of saving his life.

On the 4th of July, my son amputated the leg below the knee. On removing the dressing, I found the surface of the stump, as I had anticipated, black enough. I now determined to try the indigo weed. I made a strong decoction of the fresh root, and with this I washed the part freely, and had the dressing wet continually. The gangrene soon spread up under the integuments, forming cavities and short sinuses. Into these I injected the decoction twice a day, freely.

The medicines administered internally were a decoction of oak bark with a few drops of laudanum, and a pretty free use of his favorite drink, brandy. Suffice it to say he finally recovered, and enjoyed excellent health and spirits something over three years, and finally died of influenza.

Another case of a Mr. Merrit, was on hand a few miles distant, almost precisely to this, in a subject about as old, but of a better constitution. Finding my case doing well his attendant amputated his leg, but it did not save him. He used only the means recommended in surgical works generally, but did not use the Tinctoria.

Since then a similar case on the back of the hand, and on one finger, came under the care of my son, of a very threatening aspect. It yielded to the Tinctoria similarly used.

Several minor cases have occurred in my practice, tending to strengthen my confidence of the great value of the plant. Its activity has, as yet, prevented my using it internally. It doubtless possesses tonic, stimulant, and astringent properties in great activity, especially in its green state.

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7. *Chloroform—A Substitute for Ether.*—To the Editor of the Boston Medical and Surgical Journal:—Dear Sir,—Prof. Simpson, of Edinburgh, has lately published a pamphlet upon the use of chloroform as a substitute for ether, in preventing the pain of surgical operations. A friend sent me a copy the day it was published, and I have experimented with the article before the students of the Baltimore Dental College. Although the tests have not been complete, as indeed they could not be in the few trials of a new agent in the use of which it was necessary to acquire dexterity and exercise prudence, I am satisfied that chloroform is much superior to ether, and not liable to similar

objections. I send, with this, a proof sheet of the American Journal of Dental Science, containing Dr. Simpson's account of this new agent.

Very respectfully yours.

Baltimore, Dec. 19, 1847.

C. A. HARRIS.

P.S.—Since the above was written, I have had another opportunity of testing the anæsthetic properties of chloroform in a very difficult operation, and with complete success.

C. H. A.

[The sheet alluded to above has been received. We have space this week only to say, that chloroform is the perchloride of formyle—formyle being, in chemical language, the hypothetical radical of formic acid, which latter is obtained from the red ant, and also latterly from sugar, starch, and indeed most other vegetable substances.—*Bost. Med. and Surgical Journal.*]

8. *Chloroform Inhalation.*—MR. EDITOR,—A letter received by the last steamer from Dr. W. J. Little, Surgeon of the London Hospital, and the well-known founder of the Royal Orthopedic Institution, contains, with other interesting medical intelligence, important information concerning the employment of a new agent for producing insensibility during surgical operations, and in obstetric cases. This new agent, which it appears is exciting much attention among the English Surgeons, is chloroform, a substance first discovered by Soubeiran in France, and at nearly the same time by Liebig in Germany. Its introduction, however, to the medical public as an anæsthetic agent, is due to Professor Simpson, of the Edinburgh University, who has published the result of his experience. The following extracts from the letter to which I have referred, and from Professor Simpson's pamphlet, for which I am also indebted to Dr. Little, contain the most important items relative to this subject. Dr. L. states in his letter that he has tried and has witnessed the trial of chloroform, and from his experience thus far feels prepared to say that: "the facility and rapidity with which the effect is produced, the absence of annoyance to the inhalers and bystanders, the tranquil manner in which a person who has inhaled recovers from the state of insensibility, and the length of time he remains insensible, even after inhaling the chloroform only thirty to thirty-five seconds, give it prominent advantages over ether." Among other advantages which Dr. Simpson affirms this compound to possess over ether, are—"its having an agreeable fragrant, fruit-like odor, and a saccharine



taste; that a much less quantity of chloroform is required to produce the anæsthetic effect, usually from 100 to 120 drops of chloroform only being sufficient, and with some patients much less. I have seen," he says, "a strong person rendered completely insensible by six or seven inspirations of 40 drops of the liquid. Its action is more rapid and complete, and generally more persistent. I have almost always seen from ten to twenty inspirations suffice. Hence the time of the surgeon is saved, and the preliminary stage of excitement is practically abolished. Its perfume is not unpleasant, but the reverse, and the odor of it does not remain for any length of time obstinately attached to the clothes of the attendant, or exhaling in a disagreeable form from the lungs of the patient. No sickness, vomiting, headache, salivation, uneasiness of chest in any of the cases. Being required in much less quantity, it is much more portable than sulph. ether." The above extracts I send you without comment, as of course it is too early to form an opinion, and will only add that I have employed a chemist to prepare a quantity of this article, with which it is my intention to institute a succession of experiments.

*Boston, Dec. 27, 1847.*

BUCKMINSTER BROWN.

—*Ibid.*

9. *Result of Experiments in Boston with Chloroform.* TO THE EDITOR,—SIR:—From your apparent interest in the success of my discovery for the alleviation of pain in surgical operations, I have ventured to lay before the readers of your Journal, a condensed account of Prof. Simpson's method of producing insensibility, also the formula for the preparation of the compound used by him, together with the result of his experiments, all of which he kindly forwarded to me by the last steamer, with an acknowledgment of the merit attached to my previous discovery of the application of sulph. ether. The result of his experiments I was resolved to test immediately, and being out of health myself, I called upon Dr. D. R. Smilie, a person of some reputation in chemical science, and invited him to my laboratory. He politely assisted me in preparing and administering the chloroform, (the name given to the new compound) also in observing its peculiar effects upon the system. As we were about to apply heat for the distilling from the mixture of the following formula—chloride of lime, one part; aqueous solution, one part; rectified spirit, one twelfth of a part—a patient opportunely arrived for the purpose of inhaling ether, and having three teeth extracted

under its operation. With a little trouble she was persuaded to remain until there was a sufficient quantity of chloroform distilled for the experiment. After inhaling ether and allowing its effect to pass away, about one ounce of chloroform was put upon the sponge previously freed from the effect of sulph. ether, and administered by the usual method. In order to contract this communication as much as possible, we have purposely avoided the details of the case. The teeth were extracted without the knowledge of the patient, and we would say the effects were similar to those produced by ether.

Yours respectfully

Saturday, Dec. 25, 1847.

W. T. G. MORTON.

—*Ibid.*

10. *Typhus or Ship Fever.*—The following extract from observations by John H. Griscom, M. D., in the New York Hospital, which we take from the *N. Y. Journal of Medicine*, will be found interesting, as the disease of which the author speaks, is attracting much attention. E.

The *treatment* of this disease was based upon the idea of its proximate cause being *mainly* a vitiated, deficient and innutritious condition of the blood. I say *mainly*, because I have no particular theory as to the real nature of the disease, whether produced by a specific poison entering the system from without, as is maintained by some, or by a partial decomposition of the blood by others, or by a disorganization of the solids by a third party, etc. The most important point in my estimation to be considered, being its treatment, I have been disposed to look chiefly at its *remote causes*, and to endeavor to ascertain from a contemplation of them, what is required to overcome their effects.

The remote causes are two in number: 1st, an insufficiency of food, and 2d, the inhalation of a vitiated air. The first of these must necessarily produce an exhausted nutritive condition of the blood;—that fluid, under a protracted privation of nutriment, will not only be diminished in quantity, but its red globules, it is reasonable to suppose, will become deficient in number and in those properties which are believed necessary to the health of the organism. Both these consequences are aggravated and increased by the second cause; for in the atmosphere of the steerage of a passenger ship, crowded to the utmost limit of the law, there must necessarily, one may easily believe, be not only



a deficiency of oxygen, but an actual presence of other gases, whose chemical action upon the blood cannot but be deleterious, depriving it still further of its healthy properties.

I may be told that this brief view of the causes and character of ship fever is insufficient to account for the *febrile symptoms*,—that there is nothing in starvation, or want of oxygen, or the presence of deleterious gases, to produce *fever*. If any one who should raise this objection to the insufficiency of my position will tell us *what fever is*, I might then be able to discover a connection between it and the causes I have named. Until the *specific* nature of fever is demonstrated, it is in vain to argue about the nature of its causes, or to endeavor to trace the *modus operandi* of the influences which are supposed to produce it. But if we are to understand by fever, the frequent pulse, hot skin, thirst, etc., etc.,—then I answer, that ship fever, as it has been presented to us this year, is in many instances not a fever at all. Repeatedly have we seen patients brought from on ship board without a single symptom of fever, with pulse below the natural standard, skin moist and cool, fauces not dry, no thirst, and yet the body covered with petechiæ, the eye congested, the senses benumbed, and most of the other symptoms of the *Typhus condition*.

Confining our attention to this simple view of the causes of Ship Fever, we find little else to do than to counteract their effects. The means for this are clearly indicated, and may be classed under three general heads.

1st. To maintain the continuity of the body, and sustain its nervous energy, by stimuli, until we are enabled,

2d. To improve the quantity and character of the blood by appropriate nourishment, and

3d. To oxygenize the blood thoroughly by pure air.

For the first indication, after giving a warm bath, (an invariable rule where it could be borne,) the most powerful and direct stimulants were found necessary. Brandy and carbonate of ammonia constitute the main reliance; and during my attendance I have been astonished to observe what enormous quantities of these remedies will be borne in this disease. As an instance, I may mention the case of a girl about fifteen years of age, who took about 5 pints of brandy every day for 5 days, and for two weeks longer from 2 to 3 pints daily. At the same time she was taking 10 grains of carb. ammonia every 15 minutes, amounting to two ounces in twenty-four hours, besides soup and other nutriment. And all this without the least manifestation

of excitement, or injury to the stomach or bowels, such was the intensity of the disease. She was under this treatment nearly three weeks, before any very decided symptoms of improvement were manifested; unfortunately, before time elapsed to observe the ultimate result in this case, and just as she was beginning to feel the good effects of the treatment, the patient had to be discharged "relieved," being removed from the Hospital by her parents. Many other cases might be cited, in which it was necessary to continue, night and day, to ply these remedies unceasingly;—a very short respite was frequently sufficient to put the patient back decidedly, and a vast number of the cures were undoubtedly due to the faithfulness with which these means were applied. Where the circulation was unusually languid, or the extremities were cold, sinapisms, and artificial warmth were very valuable.

To answer the second indication, the patients were fed at frequent intervals with nutritious soups, arrow root or gruel, with wine or brandy, milk punch, egg-nog, beef, chickens, etc. etc.

Upon the third indication, pure air, I may remark, that on several occasions the necessity for it was strongly marked. The pressure for admissions several times became so urgent, that the bounds of prudence were quite overstepped, as was indicated by the fact that in certain of the wards which were most crowded, and contained the worst cases, the recoveries became more protracted, and the relapses more frequent. It became necessary to close two of the wards in the north building, and to have them thoroughly cleansed and purified. After this operation, and on confining the number of patients in them to a reasonable limit, a decided improvement was manifested in the rapidity of recoveries and convalescence. The position of a patient's bed in a ward, was observed to have an influence over his treatment. In the corners of the rooms the patients got along more slowly than in the central parts, or near the doors or windows;—and I frequently found that when a patient had been lying for several days in a part of a ward most distant from the windows, and was not doing well, a removal of his bed right under a window, would, in twenty-four hours, produce a decided change in the symptoms for the better.

Although this was the general course of treatment, it was frequently varied to suit the condition of the patient. Occasionally a case would present a degree of excitement, with hot and dry skin and thirst, which called for the spirit



Mindereri, ice in the mouth and to the head, and the mildest diet; sometimes gastric irritation with nausea would demand a mild emetic, such as an infusion of euper, perfol. If the pain and heat of the head were marked, dry cups to the temples, or forehead, or blisters behind the ears, and application of ice, would generally be found sufficient. Pneumonic symptoms with cough frequently complicated the case; when these occurred, Stoke's expectorant, with dry cups, or vesication of the chest, formed the principal addition to the other treatment.

Sometimes there would occur such a combination of general prostration external heat and dryness, as to indicate a combined stimulant and febrifuge treatment; such, for example, as the administration of carb. ammon.; or a half ounce of brandy, alternately every hour or two hours, with a half ounce of spirit. Minder.; and so frequent and sudden were the changes, in many instances, from one condition to the other, an almost constant watching was necessary to withhold the one or the other, and again resume it. In fact, the varieties and shades of symptoms were almost infinite, and called for an endless variation in the means of relief. To enumerate them would take more time and space than could be reasonably asked. There were many cases, however, for which no other treatment was necessary than good diet and cold water. Cleanliness, pure air, and food, appeared all-sufficient for the removal of the disease, even in well-marked cases, not a particle of medicine being administered to them.

*Local Complaints.*—A tendency to Erysipelas prevailed in some of the wards during the whole of my attendance. No exact account has been rendered of the number of Typhus cases in which it occurred, but they probably amounted to about 20. It attacked the face and head in every instance. Its treatment did not vary from that required under ordinary circumstances, except so far as the Typhoid condition of the patient required. Cooling applications to the part affected, with internal stimulation, constituted the general course, with complete success in every instance but one, who died from the Typhus fever, his condition from the first having been desperate. One case will justify more detailed notice. It was that of a nurse, who contracted the fever from his patients; he recovered, and returned to duty; in two weeks he had a relapse, from which he recovered slowly, and soon after getting to duty again, had a second relapse, accompanied with Erysipelas in the face and head. The frequent attacks of the fever had so reduced him, that

now, with the Erysipelatous complication, it seemed almost in vain to prescribe for him, especially, when in a few days the most serious symptoms of all occurred, viz: great heat of head and evident congestion of the brain, attended with delirium and total unconsciousness. His eyes were entirely closed by the swelling of the integuments, the tongue was dry and black, the pulse frequent and feeble. A more hopeless combination of circumstances could hardly be imagined. Depletion, even local, from the head, was totally forbidden by the prostration; and stimulation by brandy, and carb. ammon., while contributing to sustain the general strength, seemed to add to the difficulty in the head. In this posture I resolved upon the exhibition of a remedy, which I am not aware has been before tried under similar circumstances. He was directed to have *five grains of Hydriodate of Potassa every hour*. The effect of this (supposing the "post hoc" to be the "propter hoc") was magical, for in 24 hours there was a decided diminution of the cerebral congestion, and the patient rapidly recovered. The remembrance of the efficacy of this remedy as a deobstruent in certain conditions of the brain in children, especially in hydrocephalus, both the true and stimulated form, induced the hope of obtaining a similar usefulness from it in the case I have mentioned. Further observations, it is hoped, will test its efficacy in the same condition of the adult brain.

*Dysentery* was also a frequent complication of the fever, and a majority of the deaths which occurred in the latter part of my service, were produced by it. The force of the disorder fell so frequently upon the intestinal canal, as to assume an endemic character in the month of September; and the occurrence of this complication, accompanied as it generally was by purulent bloody stools, was justly dreaded.

Some of the cases which, at the outset, threatened most seriously, yielded to treatment; but it would seem, judging from the post-mortem appearances, and the rapidity with which the patients sank, that the disorganization must, in many cases, have proceeded to an incurable degree before our attention was called to it by the patient. This was chiefly owing to the anomalous fact, that, even in some of the severest forms of the dysentery, there was little or no pain evinced.

The degree of disorganization of the mucous coat, in those cases which were post mortemed, was most extraordinary, surpassing, in many instances, anything before within my experience. In some cases not a trace of



healthy mucous membrane was discernible in the large intestine, from the ilio-cæcal valve to the anus; but from every point blood, or mucus, or pus, appeared to have been discharged, clearly demonstrating the utter incurability of the disease. Copious deposits of lymph-like matter were seen, forming *bas-relief* patches, and giving the idea, without close observation, of ulceration at the intermediate points. In one particularly severe case, the entire mucous coat of the colon bore a resemblance to the rough bark of a tree, the elevations of the new deposits were so great and uneven. The color in this case was greenish.

When this complication was diagnosed sufficiently early, the administration of Tannin, and nit. argent., both by mouth and enemata, opiates, blisters, and bland diet, frequently diminished the force of the disease, and sometimes with a successful issue; but the impossibility of direct applications to the ulcerated surfaces, and the necessity of dependence on general treatment for local disease, placed this disorder amongst the most dreaded.

When *Diarrhœa* formed the principal complication, the great sheet anchor was opium. This rarely failed to keep it in check, if administered to a sufficient extent. It was sometimes prescribed in conjunction with tannin, one to three grains of the latter, from three to twelve times a day, or with nitrate of silver,  $\frac{1}{4}$  to  $\frac{1}{2}$  a grain every 2, 4, or 6 hours, according to the severity of the symptom: but generally opium alone was found sufficient, while it seemed to have a happy effect, also, upon the febrile symptoms. Held in abeyance by the opium, the diarrhœa, as the general disease abated, and the strength improved, would gradually disappear.

One case of typhus was complicated with pregnancy of about four months. The patient aborted, but the uterus had not sufficient power to expel the secundines. No hemorrhage ensuing, and the patient being too much prostrated to endure any direct treatment for their removal, they were left, and were retained five days, when they were spontaneously expelled, and the patient recovered in the ordinary time.

*Delirium*, which was a frequent complication, was usually controlled by cups or blisters to the temporal and mastoid regions, and by the exhibition of morphine or Dover's powder. Large doses of these sedatives were borne with entire impunity, and the most happy effects. In two cases, (young females) the mind continued to be disturbed so long

after recovery, as to give rise to apprehensions of confirmed insanity, but they happily recovered perfectly.

There were several other complications, such as jaundice, laryngitis, &c., but being only isolated cases, require no special notice.

The following tables prepared from the books, exhibit the results of the treatment of typhus:—

Cases remaining June 30th	-	-	-	-	134
Admitted in July	-	-	-	-	100
“ August,	-	-	-	-	126
“ September,	-	-	-	-	107

Whole number cases of typhus in three months, 467

Of these there were discharged,

	Cured.	Relieved.	Disorderly.	Request.	Died.
In July,	128	1	1	2	14
In August,	108			3	13
In September,	94			1	19
	<hr/> 330	<hr/> 1	<hr/> 1	<hr/> 6	<hr/> 46

Whole No. cases typhus discharged, 384

“ “ “ remaining Oct. 1st. 83

Per centage of cures,	85.93
“ “ relief	2.10
“ “ deaths	11.97

In a considerable number of instances, however, in which the result was fatal, death was attributable not directly to typhus fever, but to some other disease, which made its onset in the enfeebled state of the patient during convalescence; so that the ratio of deaths from typhus alone would be materially less, amounting, perhaps, to 8 or 9 per cent.

Especially was this the case, as already stated, in September, when dysentery prevailed endemically, and was the immediate cause of death in many cases of typhus, but in which the fatal result is assigned to the credit of the latter disease, on the books. One of the deaths recorded as by typhus, entered the Hospital with a *fifth attack of delirium tremens*, from which he recovered; but before being discharged, being subjected to the prevailing infection, he gradually sank, though with hardly sufficient character of typhus to be added to the list. There are probably very few persons capable of surviving five severe attacks of *mania à potu*.



The whole number of <i>Autopsies</i> in the three months (of typhus) was		10
The head was the principal part affected in	1	
The chest	1	
The head and abdomen both	6	
Nothing special was found in	2	
	—	10
Peyer's plates were prominent in	4	
“ “ ulcerated in	2	
	—	6

In every case where the bowels were affected in either of the ways specified, the membranes of the brain were congested, or there was free serous effusion, or both.

In one case in which the plates of Peyer were prominent, they were enormously large—some of them near the end of the ilium, exceeding 6 inches in length.

There were two other autopsies of persons who had been entered as cases of Feb. Remit., but the description of which leaves room to doubt whether they had not the typhus infection. In one, the membranes of the brain were congested, and there was bloody effusion. In the other there was effusion in the cranium, and the liver was enlarged, congested, and bronze.

## PART IV.—EDITORIAL.

## ARTICLE I.

## RUSH MEDICAL COLLEGE AND THE NATIONAL MEDICAL ASSOCIATION.

At a meeting of the Faculty of Rush Medical College, on the 3d of January, 1848, the following preamble and resolutions were unanimously adopted.

Whereas, a National Medical Association has been organized for the purpose of advancing the interests of the Profession, whose recommendations have thus far been generally judicious and worthy of adoption; therefore

Resolved, That the Faculty recommend to the board of Trustees the creation of a Chair of Physiology and Pathology and to increase the number of Professors to seven, and that a course of Medical Jurisprudence be added to those now given in this Institution.

Resolved, That attendance upon a Hospital during one session, and the pursuit of dissections for twelve weeks shall be required of all candidates for graduation.

Resolved, That we stand ready to comply with the remaining resolutions of the Association, so soon as they shall be generally adopted by the medical schools of the West, or when it shall be apparent that the interests of the Profession require it.

The following persons were then appointed delegates to attend the meeting of the National Association, at Baltimore on the first Monday of May, 1848, —, —.

*Remarks.*—In adopting the above resolutions, the Faculty are going but little beyond what they had already done before the organization of the National Association. They had already procured a full and separate course on Physiology. In regard to dissecting, there was little occasion to render it imperative, for so great are the facilities, and such is the attention devoted to this branch, that more than half the class are usually occupied during the lecture term in the dissecting room. At the Hospital, visits are made



daily, and the number in attendance is only limited by the difficulty of getting access to the bed side, and the class in attendance is divided into sections, which succeed each other. As, however, this seems not to be the practice elsewhere, we have made obligatory what was before done from choice.

In regard to the recommendation that the student should be required to study three years, lecture terms included, this was already among the requirements of Rush Medical College. So in relation to the adopting of means to ascertain whether students are in attendance upon the lectures; leaving them is so little practiced, that it is not thought necessary at the present time to take any action upon it.

The lengthening the lecture term from four to six months, which is one of the recommendations of the Association, was taken into consideration, but it was regarded as a question upon the propriety of which, doubts might be entertained. The lectures are now given sixteen full weeks without devoting one to introductories at the commencement and another to examinations at the close of the term, and it was thought best to make the increase gradually, by first adding two weeks in order to ascertain whether students would be able to attend longer than sixteen weeks. Action on the question was deferred until correspondence could be had with other medical schools. In the mean time, in order to give such students as are disposed to do so, the opportunity of attending a longer term than the present, a practical course on Clinical Medicine and Surgery, and a course on Anatomy and Physiology during the months of March and April, will be given. If a large proportion of the Winter's class can be induced to attend, it will afford strong encouragement for lengthening the term to six months.

D. B.

## ARTICLE II.

## GALVANISM IN UTERINE HEMORRHAGE.

We have received a communication from Dr. C. F. McNeill, of Concord, Ind., giving the result of his experience, in the application of Galvanism in exciting contractions of the uterus in profuse hemorrhage from that organ.—His manner of applying it is “to introduce the positive pole of a small portable electro-magnetic machine to the os uteri and place the negative pole upon the abdomen, immediately over the fundus of the uterus, and then regulate the electrical current as circumstances seem to require.” He says, “the result is immediate and firm contraction of the uterus.” As this fills the great indication of cure in cases of hemorrhage following delivery, we cheerfully comply with the request of our friend “by bringing the subject to the favorable notice of the profession.” He also suggests the propriety of its application in labor.

The remedy was highly recommended by Dr. Radford, of England, about four years ago, but does not seem to have attracted much attention. He recommends it in hemorrhage before as well as after delivery of the child, and either before or after the delivery of the placenta.

From the powerful and certain influence of moderate currents of electricity, in producing muscular contraction, we would be led to the conclusion *à priori* that it would form one of our most reliable remedies in an affection that depends upon the relaxation of an organ so decidedly muscular in its character, as the uterus.

But when to its philosophy we have added the test of actual experience in its favor, without a single argument against it, is it not the part of wisdom, nay of duty, to use it?

The cases in which we conceive it more particularly applicable are those in which the hemorrhage follows delivery, as there can here be no danger of injuring the child, which is not certainly the case prior to delivery. In such cases we can see only one obstacle to its becoming our most common and most popular remedy, which is the difficulty of



being always prepared with the battery. Certainly in a country practice it would be a great inconvenience for the physician to go prepared with the machine, especially as he might not find occasion to use it once in a long time, for the purpose, and unless he has it with him, the case will frequently terminate fatally, or be relieved by other remedies before he can procure it.

But in city and hospital practice, it must, if future observations corroborate those already made on its use, soon become the main dependence in the treatment of the cases of uterine hemorrhage above referred to, when the ordinary means fail.

There is one other thought in connexion with the subject, that occurs in consequence of the philosophy of the action of galvanism, in exciting muscular contraction, and our ability to apply it to any part we may desire, by placing the poles of the battery on opposite sides of the part through which we desire it to pass, which is that in cases of irregular contraction of the uterus, whether of the cervix, the hour-glass, or the contraction of the circular fibres without that of the longitudinal, from which forms fatal consequences often result, a current of electricity may excite the relaxed fibres to contraction, and produce the necessary equilibrium of action.

Again, we make the suggestion, that our professional brethren may, if occasion should offer, act on it, that when the placenta is retained by morbid adhesions to the uterus, violent contractions, such as may be excited by electricity, may cause its detachment and expulsion, which certainly would be far preferable to the painful and always dangerous operation of introducing the hand and separating it with the fingers. And in cases of abortion where the ovum is retained for a considerable time after its death, may not currents of electricity, passed through the uterus, promote its expulsion?

Another idea occurs, which is that in those cases of debility, always attended by a greater or less degree of relaxation of the uterus, where the lochial discharge continues too

long after labor, the passage of currents of electricity may stimulate the organ to a more rigid condition, and thus check and arrest the discharge and afford relief.

And yet another idea;—is it not probable that currents of electricity passed through the uterus, energizing the muscular structure, and consequently, by continuity, the whole organ, may prove highly advantageous in chronic uterine leucorrhœa?

We hope these suggestions may prove useful in directing the attention of the profession to the application of galvanism in the various conditions suggested, and that we shall hear from those who may make a trial of it, by a report of their experience and observation for our pages. E.

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#### ARTICLE III.

#### QUACKERY.

The attention that has been paid to this subject of late, and its importance, render it one of much interest. In a late number of the Journal, we noticed some legislative enactments in reference to the profession, and amongst other things, the law passed by the legislature of Maine for the suppression of nostrum vending, which required that all compound medicines sold in the State should be accompanied with a label, setting forth in full the ingredients of which they were composed, and the proportions of each, under certain penalties.

Here was a poser. But notwithstanding the shrewdness of Yankee law-makers, and their laudable designs to suppress the villanous practice of vending secret compounds as "king cure all," still the Yankee quacks soon found in the Chinese language a means of complying with the conditions of the law, without divulging their secrets to those not learned in that oriental tongue.

The legislature, finding, in their first attempt to suppress nostrum vending, that they had failed, instead of remedying the defects of the law foolishly repealed it; as much as to say "we give it up."



There was a principle involved in this law, or in its spirit, which we believe to be the true cure for the great traffic in nostrums. If the public knew the composition of the various patent and secret syrups, pills, electuaries, plasters, unguents, linaments, &c., &c., of which they annually in the United States consume millions of dollars worth—no, not *worth*, (for many of those bearing the highest price are intrinsically worthless,) but an amount which costs them millions, the trade would almost immediately stop, as it is the mystery that gives them currency, and completing the deception enables the quack to sell his aloes, that costs not to exceed 25 cents per pound, for at least ten times that amount, and molasses, worth 50 cents per gallon, when mixed with a little paregoric at one dollar per gill.

We shall hope to see the States generally try to protect the public, by requiring the composition of every medical compound dispensed within their limits, to be intelligibly set forth, so that when a patient takes physic, he may know something of the propriety of the bill he has been charged for it by his apothecary.

This, too, would be a good remedy for the nefarious practice we see alluded to by our cotemporaries, as practised between apothecaries and physicians on patients, in many of the larger cities of the United States, and, we fear, to a greater extent than is yet generally suspected, by which the physician receives a per centum on all prescriptions sent to the apothecary's shop, which influences him to prescribe larger quantities and frequently to change his prescriptions.

Now there is something so reasonable in this requisition, that few, if any, of the intelligent will fail to approbate it, unless interested against it. What, oppose the passage of a law that requires the salesman to tell the purchaser what it is he is selling to him?

Nor would the public be particularly opposed to knowing what composes Brandreth's pills or Wistar's Balsam of Wild Cherry, et omnes genii, for they are not aware of the certain result—that it would rob them of almost all of their virtues.

The following from our esteemed correspondent A. W. Benton, M. D., contains some original suggestions on the subject, and we cheerfully insert them. E.

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ANTIDOTE FOR QUACKERY.

Quackery as a cause, and gullibility as its effects, I believe have generally been treated by the faculty of well bred and honorable physicians with moral and intellectual remedies, with how much success the "thousand and one" advertisements in the newspapers, and parade of show bills and nicely labelled bottles will tell.

The cause, I consider entirely beyond the reach of moral remedies. When there is no conscience, moral remedies will have no effect. The *effects* of quackery I fear will seldom yield to intellectual remedies alone, but if backed up by proper physical means it is possible they might succeed. I have long been of the opinion that some means might be devised to lessen, if not entirely suppress the sale of the ten thousand quack medicines now offered for sale in every store, tavern, grocery, and doggery throughout the length and breadth of our land. People will have some domestic remedy to apply in cases of slight indisposition, rather than send for a doctor for every trifling ailment, and I am not sure but it is right they should have. The only apology I know of for the quack is, that the community is not supplied with medicine from any other source.

The plan I would suggest is to put in operation such measures as will supply the community with a sufficient number of some of the cheapest and safest medicines, (either officinal preparations or other compounds with the R attached,) to fill the place of the quack medicines.

With a modest advertisement, setting forth their value, stating that they are the remedies approved by the most eminent medical men in both Europe and America, and laid down in the standard works on medicine. Also stating that if these medicines fail to cure, and they are compelled to send for a physician they have the advantage of the Dr's. knowing what they have been taking, and consequently is better enabled to know what medicine to give next; whereas if they use quack medicine, he does not always know whether the patient is sick in consequence of the medicine taken, or something else.

With such a recommend would they not compete with the quack nostrums now in vogue? And would it not be well for every Medical Society, to put in operation such



means as would supply the district of country over which their influence extends, with a well selected number of common remedies in sufficient quantity to meet the demand? We know that many of the quacks amass princely fortunes from the profits of their sales, and it does seem to me, that the community might be supplied with medicines of known efficacy without a hazard of life.

I would suggest this plan for reflection, to be acted on as judgment, matured by deliberation, may dictate.

Sterling, Jan. 1848. A. W. BENTON.

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#### ARTICLE IV.

#### ON THE CURE OF SPINA BIFIDA BY INJECTION OF THE TINCTURE OF IODINE.

This disease and malformation not only constitute one of the most distressing affections to which infants are subject, being attended often with incontinence of the urine and fœces, paralysis of the lower extremities and idiocy, but is also according to the best authorities, and indeed is shown by general experience to be incurable, with few and rare exceptions. For if in the annals of surgery there are to be found a certain number of successful cases, yet when considered with reference to the whole number occurring, it will be seen at once that no plan of treatment yet proposed affords more than feeble chances of success.

Of these methods of treatment, it is not a little singular that the one which consists in evacuating the fluid more or less perfectly should have been generally adopted, notwithstanding that the evacuating of serous fluid by puncture in every other situation is generally found to aggravate the disease. In this case it is liable to prove fatal by removing the necessary compression on the central organs of the nervous system. If the method has sometimes succeeded, it was from the inflammation induced by repeated punctures checking effusion and producing absorption, and not by any means from evacuating the fluid, which only gives it a greater tendency to increase. This danger and that which results from ulcerative inflammation at the point of puncture, on a tissue like the covering of this species of tumor should pro-

hibit its performance. We were led to these views from reflecting on a case of Spine Bifida in the Chicago Hospital, in a girl said to be 13 years of age, in whom the tumor was situated at the top of the sacrum, being nine inches in circumference and about three in height, with thin walls. This girl had been paralytic in the lower members, but within three years had acquired a partial use of them. She was idiotic, and passed both the fœces and urine without regard to place. From neglect of cleanliness, numerous ulcerations and large cicatrices had, from time to time, been formed upon the pelvis and thighs.

Under these almost hopeless circumstances I determined to inject into the sac a solution of Iodine, with a view of exciting inflammation and procuring absorption. This was done on the 2d Dec. 1847, in the following manner: A small puncture was made with the lancet on the sound skin about half an inch from the base of the tumour and a trockar of the size of a common knitting needle carried obliquely into the sac. Through the canula of this a solution of gr. j. of Hyd. Potass. with gr. ss. of Iodine in f. 3i. of water, was thrown into the sac and the instrument withdrawn. A sharp pain followed which soon subsided. Compresses and a bandage were applied to prevent the escape of the fluid, and the child was laid in bed. There succeeded redness, heat and tension of the tumor with tenderness to the touch and some febrile symptoms, for which a cathartic was administered and evaporating lotions applied to the part. In the course of a week these symptoms subsided, and the tumor became soft, yielding, and diminished in size. Compression by means of a roller around the pelvis was then applied, and kept up with as great degree of force as could be borne, but the filthiness of the patient and her indocility prevented this from being applied with regularity. It was frequently removed for twelve hours or more at a time. Still it diminished, and on the 27th Dec. was about half its former size.

At this time a second injection was used of half the strength of the first. This produced but little heat or pain



and the compression was continued. On the 15th Jan. 1848, the fluid was so far absorbed as to render it easy to press it down almost to a level with the surrounding skin. A spring truss was then substituted, and at the present time the sac lies in wrinkles, the bony opening can be distinctly felt, and there is no increase of swelling when the pressure is removed. Recently there has been manifested a decided improvement in the intellect of the child, the other difficulties remain the same, but with the removal of the cause the partial paralysis will doubtless gradually disappear. The retention of the natural evacuations must depend upon the development of the intelligence, and the gaining of a control over the voluntary muscles. In its present condition, this case shows that the injection of a solution of iodine, followed by suitable treatment, is capable of curing an ancient case of Hydrorachitis, and (so far as a single case can be taken as a guide,) with but little danger. Further experience will be required to determine the strength and quantity of the medicine to be used, the frequency of the repetitions, in younger subjects than this, it is obvious that the dose employed should be not more than a fourth of that used at first in this case.—To those who would deem such a proceeding extremely hazardous, we would remark that a number of facts have within the last few years come under our observation, tending to show that serous membranes are, when filled with serum, much less disposed to inflammation than when in a healthy state. Experiments are required to show which among the astringent and stimulating fluids can be brought in contact with them with least danger, meanwhile the safety with which solutions of Iodine may be thrown into the large articulations, into the sac of a congenital hernia, and in some instances into the peritoneum, and in this case into the arachnoid membrane, will free us from the charge of presumption in suggesting that it, or some other solution, may be worthy of trial in those cases of Hydrocephalus, ascites and hydrotharax, which are hopeless under ordinary treatment.

D. BRAINARD.

## ARTICLE V.

## INTRODUCTORY LECTURES.

We have received introductory Lectures, delivered the present Session by Professors Lawson and Harrison, of the Medical College of Ohio, Professor Drake of the University of Louisville, and Professors Dunglison, Mitchell and Mütter, of the Jefferson Medical College of Philadelphia, all published by the class, indicating quite an increase in this branch of medical literature, which generally corresponds to its poetry, being designed to please as well as to instruct.

Professor Lawson's is full of poetry of thought and language, the evident emanation from an active energetic mind.

Professor Harrison's treats of the "state and prospects of the Medical profession." He sees in the signs of the times much to encourage, and refers to the moral as well as intellectual improvements that are being made.

He approves of the multiplication of Medical Schools, when in a proper location and properly organized, as affording many great and important advantages to the progress of the profession, and in repressing quackery. It is a good address and shows well the bright side of the picture of the profession.

Prof. Drake's is truly, as its title proclaims, "strictures on some of the defects and infirmities of intellectual and moral character in students of medicine," and is applied to his class in groups (leaving the members to arrange themselves according to the lines marked out,) of which there are eleven, which severally receive "their portion in due season."

Group 1st. is composed of the gifted, and the 2nd of third course students, who are advised to beware lest they relax their efforts in consequence of ability and advantages—the 3rd, practitioners—the 4th, of those who are without due preparation—the 5th, of those who are under the necessity of going to practice before completing their studies—the 6th, of those too intent on practical matters—the 7th, of the mentally incompetent—the 8th, of those who lack punctu-



ality—the 9th, of those fond of social conviviality—the 10th, of the dissipated, and the 11th, of the bullies and desperadoes, who severally are shown up in that masterly manner peculiar to the author, and are encouraged, advised, admonished, reproved or *scathed*, as their several cases seem to demand ; and the address closes with a few reflections on the defects that are common to them all. It is sound, practical, strong and clear, such as we always have a right to expect, when we see Dr. Drake's name on the cover.

Professor Dunglison's is a learned history of the healing art, and correctly points out the use to be made by the man of science, of the 'isms, 'pathys and nostrums, by waiting until the mystery is removed, and appropriating to his own use, all the valuable that can be gleaned from amongst the dross. He commences by a few preliminary remarks, in which he refers to that "largest class" that had ever assembled in the United States.

Professor Mitchell after the preliminary reference to the prospects of the school and the "largest class that ever presented itself before a medical teacher on this side of the Atlantic," speaks at length in reference to, and seems to oppose, the lengthening of the terms of our college sessions, and winds up with quite a eulogy upon the profession in America. It is rather desultory, the author, Quaker fashion, not having taken a text to preach from ; showing however, that he is a clear thinker and a fluent writer.

Professor Mütter's, is devoted to the consideration of the qualifications necessary for the successful prosecution of the art. In the first place he shows the necessity for a good physical constitution, then of a thorough education, and shows the tendency of our science to expand the mind, citing that a large number of the most distinguished names on the scroll of fame, in almost all departments of intellectual greatness, are from the ranks of our profession. He shows the power of persevering industry in its strongest light, and closes with an exhortation to "strict morality and virtue" It is one of the best.

We are sorry our limits will not allow us to furnish a more extended notice of those pleasing and instructive evidences that our professional brethren are both actively laboring and highly appreciated. E.

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#### THE IOWA FARMERS' ADVOCATE.

We are in the receipt of this spirited monthly, from Burlington, and hope it receives, as it deserves, an extensive patronage. It costs \$1 per annum, and the farmer will find it to be a very profitable investment. E.

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#### UNION MEDICAL SOCIETY OF NORTHERN INDIANA.

We received from Dr. P. Henkle, Corresponding Secretary of this spirited Association, an abstract of the proceedings of its meeting, at Benton, held on the 2d Tuesday of November last, too late for their insertion in the proper place.

Dr. W. J. Matchett read a paper on the subject of the use and abuse of calomel, which was ordered to be sent to this Journal for publication. Dr. M. M. Latta was appointed delegate to the National Medical Association. The next meeting is to be held at Goshen, on the second Tuesday of May next. E.

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#### CHLOROFORM.

Several operations have been performed, by Prof. Brainard, with very satisfactory results, upon patients while under the influence of this new agent for producing insensibility to pain, which Prof. Blaney manufactured in the College Laboratory. E.

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#### OBITUARY.

Dr. WAINWRIGHT of New York died recently from the bite of a rattle snake which had been sent to him as a curiosity, by a brother-in-law from Alabama.

Recent European news announces the death of LISTON, the eminent English, and Diefenbach, the great German surgeons.



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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

*Cases and Observations on the use of Strychnia, in Intermittent Fevers.* By J. E. MCGIRR, A. M., M. D., Chicago.

There is perhaps no practitioner, who has resided for any length of time in those districts where Intermittent Fevers prevail, but has met with cases of agues, more commonly old and sometimes even recent agues, in which his best directed efforts were powerless to restore deranged secretion or perverted nutrition. He has been compelled to see the sallow and emaciated being, perhaps a near and dear friend, wearing daily away, until the hollow cough and the sunken and lustreless eye have shown too plainly that the days of the victim were few for this world. Having met with such in my practice in the Juniata district, of Pennsylvania, it was with no small degree of satisfaction that I first learned from Professor Brainard, the advantages he has derived from the use of Strychnia in cases of this nature, in the Chicago Hospital, under his direction. I witnessed the salutary effects of its use and resolved to try it if an opportunity offered. The following are cases in which I have tried it and they will show for themselves. I would merely premise that the crystals of Strychnia were used.

CASE 1.—Mrs. F., æt. 28, labourer's wife, whose health previously to her attack of ague had been good, and whose habits were regular, placed herself under my care on the 15th of June last. She states that she has had the ague for several months, thinks since October of last year, at intervals, and she used Sappington's pills, which mostly arrested it, for a few days, but they afforded her no permanent relief. She has now the ague every second day; the shake occurring about 10 o'clock, A. M. Her tongue is coated white; skin harsh and dry; head-ache and general lassitude; bowels irregular; great thirst and occasional vomiting; spleen enlarged; breathing oppressed; much emaciated and without any appetite. On percussing, the chest sounds clear; auscultating, the breathing is found distinct over the whole chest. She is nursing a child four months old.

I ordered her quinine, ten grains, with one-sixth of a grain of sulphate of morphia, to be taken, night and morning, for four days.

16th. She feels much better. Her shake to-day was much lighter than usual, but the quinine lies heavy upon the stomach and was to-day rejected. The spleen is much reduced in size. I may here state that M. M. Valleix and Gouraud, think that quinine has no effect upon the volume of the spleen in ague—*London Lancet*, vol. 6, p. 397—while M. Piorry contends that it has. Whether it was the remedy that reduced the size of the spleen, in this case, I will not say; but that it was reduced and that no other remedy was exhibited but that ordered, I unhesitatingly assert, and my opinion is with those who believe in its efficacy, in this respect. As the stomach did not bear the quinine well, I for the first time ordered the Strychnia, in the manner recommended by Professor Brainard, namely: one-eighth of a grain, three times, daily, a dose to be given after each meal. He says, (*Journal*, vol. 2, p. 118,) "that when it is mixed directly with the contents of the stomach, it is less likely to produce unpleasant effects."

20th. Feels better than she has done since her first attack. The shake has left her, as also, the headache; tongue



clean; bowels regular; able to sit up again, and appetite better. Strychnia to be continued until she takes 2 grains more.

I saw her on the 20th of October up to which time she had continued well and without a relapse.

CASE 2.—J. C., æt. 34, a short, thick set, labouring man of regular habits, and whose health previous to his attack of ague had been excellent, applied to me on the 30th of August. He says that he has had the ague since May, and that he has been able to check it with quinine, for a week or ten days, but that it would always return again. His present condition is, impaired digestion; bowels lax; countenance blanched; tongue coated and white; pain over the eyes; skin dry and harsh; urine scanty, deep red, and scalding; pulse irregular and quick; shake every day in the forenoon. Percussion and auscultation, found nothing irregular to note in the chest.

As he complained that he felt a chill coming on, I ordered him twenty grains of quinine, and to return on the first of September.

Sept. 1st. One-eighth of a grain of Strychnia ordered three times each day.

5th. Shake arrested; head much better; bowels more regular; urine improved in quantity and appearance; pulse more regular; appetite not much better. I directed him to continue Strychnia until he had taken two grains more.

16th. He came back to-day with a return of his disease; he had eaten a portion of water-mellon and was immediately attacked with the ague. I gave him fifteen grains of quinine and one-sixth of a grain of morphia to be taken to-night, and the same quantity for to-morrow morning.

17th. Had no shake to day; feels better; but his appetite is very poor; I ordered him the Strychnia as before.

19th. Feels much better; appetite a little better; says the medicine jerks his arms a little, and that it vomited him a little the first time he took it. I directed its continuance.

Oct. 7th. Disease returned in consequence of getting wet. I ordered him again fifteen grains of quinine and one sixth grain of morphia.

8th. No shake to-day. I ordered him two grains of Strychnia to be divided into sixteen papers, one to be taken after each meal until eight are taken, then two each day till the remaining eight are taken.

15th. Better than he has been since May last ; says he feels this time as if the ague had left, but that he felt before as if it would return again. Appetite good, and color improving. Three doses of the remedy cause him to have slight tetanic spasms, two do not at all effect him. I ordered him two grains more Strychnia, to be taken as by the last direction, but with an interval of four days between each grain.

I saw him a few days ago, though he has been labouring in all kinds of weather, and sometimes for hours in the water, he has not the slightest evidence of a relapse.

CASE 3. H. W. æt. 28, a carpenter, of regular habits, placed himself under my care on the 15th of September. He says that he has had remittent fever, by which he was confined to bed for six weeks, and since he has got up he is gaining no strength, but is rather losing the little that he had. For a while he had a voracious appetite, but eating did not appear to benefit him. He has now no appetite, and on the least exertion, even walking over the floor of his room, he feels as if he would never recover from the exhaustion. Bowels are loose ; abdomen tympanitic ; occasional watery stools, tinged with blood ; countenance sallow ; is much emaciated ; breathing quick, pulse 120 and small ; tongue deeply coated, with red tip and edges. Percussion gives a clear sound over the chest ; auscultation, the *bruit de souffle* in the carotids. He shakes every second day, about 10 o'clock, A. M., and the fever continues on him until about 4 o'clock, P. M. I ordered him to take one-twelfth of a grain of Strychnia after each meal.

17th. The only perceptible change is, that the fever lasted a shorter time, to-day, than usual. Strychnia to be continued.

19th. Feels a little better ; diarrhoea not so troublesome ; shake not quite so severe. Continue Strychnia.



22d. Is much better ; escaped one day without the shake, but had a chill that was not very marked, though some fever followed ; diarrhœa has nearly ceased ; appetite returning. Increase the dose of Strychnia to one-eighth of a grain.

30th. Had no chill or fever since the twenty-second ; diarrhœa disappeared entirely ; appetite pretty good. He was able to nail some boards on his garden fence, to-day, without much exhaustion. I directed him two grains more of Strychnia, one half to be taken in four days, and the remaining half in like manner, after an interval of four days more.

Oct. 18. Feels as well as ever he did.

CASE 4.—Mrs. T's. servant girl, æt. 16, sent to-day, Oct. 18, for some medicine for dysentery. I sent her of comp. syrup of Hœmatoxylon and Rheubarb, two ounces, of Hydrochlorate of morphia, two grains, mixed, with directions to take one teaspoonful three times a day, or oftener, if the pain and tenesmus were severe.

26th. She came to tell me that the dysentery had not been checked, although she had taken all the medicine. The mitigation of the pain, was all the benefit she experienced. She has chills and fevers every day ; appetite gone entirely ; has a great deal of pain in the abdomen, and severe headache every evening ; so much so, as nearly to blind her. I ordered her two grains of Strychnia to be divided into sixteen papers ; one, to be taken after each meal, until eight are taken ; then, two each day, until the remaining eight are taken.

Nov. 18th. Came to pay her bill, and says that the dysentery, chills and fever, stopped on the third day after she began to take the powders. She had no relapse.

CASE 5. O. B., emigrant, æt. 40, enjoyed excellent health until he arrived in Chicago. He put himself under my care on the 17th of November. He had the fever for the last six weeks. His disease began as remittent fever, and changed to intermittent. Has a shake every second day, which begins about two o'clock, P. M., when he is obliged to go to bed, and does not get warm until next morning.

Percussion gives a remarkably clear sound over the chest. Auscultation detects the *bruit de souffle* in the carotids. Has a bad cough, short and dry; complexion sallow to excess; cheek bones projecting; cheeks sunken; tongue thickly coated, white, with red tip, and edges; bowels irregular; epigastric tenderness; limbs attenuated. His anaemic condition led me, at first sight, to suppose the man a far advanced case of phthisis, and I was never as much disappointed as when the chest proved resonant, and remarkably so, throughout. But his extreme prostration, and the apparent total destruction of the function of nutrition, seemed to offer as little promise, as if his case had been, as at first, supposed. To satisfy him, I prescribed the Strychnia, with the hope that it might benefit him. I ordered him one-twelfth of a grain to be taken thrice, daily.

Dec. 1st. Is much better; cough has nearly ceased; has been clear from chill from the fourth day, until yesterday, when he got his feet a little wet and had a chill; appetite something better; the sense of taste which was destroyed, is, in a measure, returning. I directed him to increase the dose of Strychnia to one-eighth of a grain for each dose, and to continue as before.

15th. Continues growing better. I directed him to continue the Strychnia until two grains more are taken.

Jan. 1848. He has recovered entirely.

CASE 6. Mrs. O. B., æt. 34, wife of the man whose case is given above, had the fever at the same time as her husband. She applied to me on the same day. She has now rigors and fevers every second day; tongue coated white; bowels lax, with occasional severe diarrhoea; is much emaciated; appetite very poor; pulse irregular and quick; intermitting pain over the left eye. I directed for her, Strychnia, grain, one-eighth to be taken three times each day.

Nov. 20th. Rigors arrested, but the Strychnia was prescribed as before, to guard against a relapse. It was taken, in all, eight days.

CASE 7. Mrs. McM., æt. 48; a case of complication



with bronchitis, sent for me on December twenty-second. Her health has never been very good. She has been subject all her life to occasional attacks of bronchitis; sometimes, in the spring, particularly, to severe attacks. She has been confined to her bed now for two months. She has a very severe cough with copious expectoration of frothy mucous; respiration laborious; tongue, deeply coated, red edged; pain in epigastrium and left hypocondrium; bowels rather costive. Percussion gives a very clear sound over the chest. Auscultation, the respiration is distinct over the whole chest; but the bronchia are loaded with mucous. She has had a chill for nearly three months, which commences at about two o'clock, P. M., and continues for three or four hours, followed by fever and copious diaphoresis; sleeps scarcely any at all; has no appetite whatever, and is obliged to force herself to take any food; great thirst; is very much reduced in flesh and is scarcely able to move in bed; when she attempts to turn, the effort brings on palpitations that are very distressing. Has severe pain constantly over both eye-brows. I directed her two grains of quinine to be given three times each day.

23. Rested better last night; pain in the head better; chill lighter, to-day. I directed the quinine to be continued.

25th, A. M. Yesterday she felt quite well, comparatively; feels stronger; appetite no better; bowels still costive. I directed castor oil.

25th, P. M. Is much worse; pain in the head very severe; has had cold chills all day and cold perspirations; cough much more troublesome; expectoration more labored; the oil operated very well. I directed her one-twelfth grain of Strychnia, three times each day.

26th. Tells better; slept well last night; has no cold perspirations to-day; continue Strychnia.

28th. Better; continue Strychnia.

29th. Rested well last night; no chill yesterday at all; eat with some relish, a little gruel, yesterday. I directed the Strychnia to be increased to one-eighth of grain for each dose.

31st. Has been much better yesterday and to-day ; no chills ; yet the cold perspirations continued on the lower part of the body. The bronchial secretion has been gradually diminishing with the returning strength. Continue Strychnia.

January 11th, 1848. Has been able to set up during the past week ; her appearance much improved ; cough not so troublesome ; expectoration still diminishing gradually ; chills gone entirely, but the cold perspiration still a little troublesome. She eat a hard boiled egg yesterday, which caused her much annoyance. Directed her a dose of castor oil, and after its operation, nitrate of potash, four grains, to be taken four times each day until the perspiration ceases.

13th. Perspirations have ceased ; Strychnia resumed until two grains are taken.

17th. Still continues to grow better ; appetite good ; scarcely any cough or expectoration.

OBSERVATIONS.—The cases might be continued ; but as the others that I have entered in my case book, present the same general features with those here given, their notice is unnecessary. In the foregoing, I have been careful to observe the condition of the lungs : for in the four cases in which I tried the Strychnia, without any evident signs of benefit, there existed phthisis. Of these cases it is unnecessary to say more, than that the chills occurred every evening, and were not in the slightest perceptible degree, controlled by the remedy ; although, in one case, it was continued for three weeks, and I am, therefore, inclined to believe, that the *integrity of the lungs is necessary to the beneficial action of the Strychnia in the restoration of the function of nutrition and secretion.* Of the physiological action of the remedy I say nothing. I merely give the cases as they occurred, with the treatment and the result. Facts at this stage of the inquiry as to Strychnia, are what are wanted. That Strychnia possesses the power of arresting intermittent fever, is certain ; and that its effects are, though slower, more permanent than the effects of quinine, is equally certain. Besides, it possesses this great advantage over qui-



nine ; that while the quinine, in cases of deranged digestive function, as of case 5, would rather increase the difficulty, and surely not benefit, the Strychnia produced marked and permanent amelioration. I may be allowed to remark that, to me, the results here communicated were peculiarly satisfactory, for these were the very kind of cases that I and my medical brethren, in the district before mentioned, found most difficulty in managing.

I believe that Strychnia will take its rank as an adjuvant to quinine, in the treatment of fevers ; and, that, while the latter will be used, as now, to break up the paroxysms, the former will then take its place to perpetuate the cure, restoring the perverted nutrition or deranged secretion, the cause or consequence, as the case may be, of disease. I am satisfied that the Strychnia is, by no means, as dangerous a remedy as is generally supposed. Case three, took six and two-third grains, in twenty-three days. Case five, took eleven and one-eighth grains, in forty-one days ; and, case seven, took eight and a fourth grains in twenty-seven days. In all the cases the effects of the remedy were closely watched in order to observe the least symptom that might contra-indicate its use. It produced slight tetanic spasms in case one, and also slight vomiting when first given. In two cases the patients complained of vertigo. These were the only effects observed and they were not considered sufficient to require the Strychnia to be discontinued. It was always given in powder mixed with starch.

*Quere?* As both the cases, three and five, in which anæmia was present, in so marked a degree, were salivated profusely, during their treatment, might not this condition of anæmia have been caused or, at least, aggravated by the free and indiscriminate use of mercury ? We know that mercury will combine with the pepsin, thereby impairing, for a time, digestion ; and if a fresh portion of mercury be still added to neutralize each new portion of pepsin eliminated, we can easily see that it would be very easy to perpetuate its destructive effects upon digestion, and more particularly so, since the pathological tendency of the

disease itself is so strong in that direction. If such be the case, might not many physicians do better than to indiscriminately administer mercury in these fevers !

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## ARTICLE II.

## LETTER FROM S. G. ARMOR, M. D.

NEW YORK, Feb. 8, 1848.

DR. BRAINARD :

*Dear Sir,*—In my last letter I gave you the chemical composition of the chloroform, an article recently introduced to the profession, and one which promises to be of much service in rendering patients insensible even to the most terrible surgical operations. It is extensively, but at the same time judiciously and cautiously used here, and, so far as I learn, with very satisfactory results. It appears to have entirely superceded the sulph. ether.

Another article, new to the profession generally, but of which you have doubtless seen an account in some of the recent journals, is the *gutta percha*. It has been recently introduced from Europe, chiefly as an article of trade, and is seized upon by the *surgical* portion of the profession here with great avidity. It is a substance somewhat analogous, in its physical properties and appearance, to gum elastic or India rubber, and is said to be admirably adapted to the treatment of certain forms of fracture, especially fractures of bones occurring near their articulations, such as the *condyles* of the humerus. It is well known that these are a class of fractures at all times difficult to manage. A leading indication in their treatment, being a flexed position of the arm, a dressing which can be easily removed and readily changed, in order that a different flexion and a sufficient amount of passive motion may be kept up from time to time, thereby preventing ankylosis of the joint, is, to say the least, a matter of great convenience. This substance would appear to answer this purpose in an eminent



degree, from the fact that it possesses the property, when heated for a few minutes in warm water, of entire *plasticity*; it can be readily moulded to any shape; and when cool, *preserves its shape*, forming a firm caste, yet sufficiently elastic to render it a comfortable and safe dressing. It is highly spoken of by the profession here who have tried it, and whose extensive experience in the treatment of fractures has rendered them familiar with the difficulties which are often encountered.

The Medical Colleges of the city have both very fair classes, although not much increased in numbers, if any, from last year. The University numbers some 400, and the College of Physicians and Surgeons about 190 or 200 students. Eastern medical schools do not appear to be increasing in the same ratio with those of the west. Advantages of instruction being equal, many western students prefer western institutions where medicine is *taught* as it is *practised*, and, indeed, so much do the peculiar epidemic fevers of the Mississippi valley become complicated with, and give character to many chronic diseases of the south and west, that it is not without *reason* students seek schools of medical instruction in that region. To one, familiar with the diseases which present themselves for clinical instruction, in the west and east, this is seen in a very striking view. While typhus and typhoid—pneumonia, phthisis, scrofula and syphilis, with all its loathsome concomitants, are constantly presented for instruction and treatment here; our quotidians, tertians and quartans—"hob-nail" livers and "ague-cake" of the west, with all their pathological relations, are rarely met with. Almost daily in attendance, at the City Hospital, since my arrival in the city, and at the clinics connected with each of the Medical Colleges, I have seen but *one* patient from the miasmatic regions of the west. He, by some means, found his way here from our State of Illinois, and such cases being rare, and constituting a pleasant variety for clinical instruction, he was jocosely presented to the class by the good natured Professor, as "one of the men we *read* about," and his dis-

ease, one of *secondary* character, was thought to be one of much interest, as originally growing out of an attack of fever, peculiar to the country, from which he came. For the general student of medicine, however, New York affords many advantages. The city and its environs, containing a population of almost half a million, with its crowded hospitals, infirmaries and dispensaries, furnish abundant opportunities for the acquisition of professional knowledge. Indeed, so far as relates to the unfortunate poor, who are thrown into these institutions of charity, New York may well claim a sad pre-eminence over all her neighboring cities.

I am pleased with the spirit manifested by the profession of New York. Perhaps at no time in the history of this Metropolis was medicine cultivated *as a science*, to the same extent it is at present. And this remark will, doubtless, apply to the profession, generally, of this country. It is *not true* that our science is *stationary*. At no time were more united and successful efforts made to advance the science of medicine. This advance is seen in the increased attention given to the study of *pathology*; the study of animal and organic chemistry, and therapeutical remedies, in their direct relations to *pathological conditions*; greater accuracy and precision in statement of *facts* from premises; a more varied scope of enquiry, and an *augmented spirit of original research*, with less reference to abstract and speculative theory. These things, faithfully and energetically carried out, must and will give stability and character to our medical literature.

Respectfully, yours,

S. G. ARMOR.

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#### ARTICLE III.

We take the liberty of publishing the following extract from a private letter, dated Inlet Grove, Lee county, January 20, from our esteemed young friend Dr. Welch.—ED.

“I have had a *curious*, and, perhaps, dangerous case, upon



which I should like your opinion. In the month of October, I was sent for to see a little girl, of seven years of age, who was said to be barking like a dog. I found her to be, to all appearance, in health, except that she had, every few minutes, a paroxysm of a peculiar ringing spasmodic cough, very difficult to describe, but as near as anything not unlike the rapid barking of a small dog. There was no pain, nor difficulty of breathing, nor expectoration, nor sense of oppression during or between the paroxysms; which occurred, perhaps, four or five times in the course of an hour, lasting not above a minute or two. An emetic relieved her for the time and thinking *malaria* might have something to do with it, gave quinine to an extent to produce nausea, whenever they should occur again. She gradually, for a time, got better under this treatment, but at length, in six or eight weeks they began to recur again with more severity, and my assistance was once more required. The cough had changed, somewhat, its character, being less ringing; and sometimes there would be scarcely any noise, but the mere pantomime of a cough. There was some oppression now during the cough, and sometimes she would have frequent vomiting without nausea. Blistered the back of the neck; gave assafoetida with camphor and ipecac and more quinine. Improved under this treatment for a time; but two weeks since became worse, and being sent for again, I examined the tonsils which were found to be much enlarged, injected and studded with a few white points. They seemed to be, besides, quite sensitive, a touch being enough to excite the spasmodic cough. I thought this enlargement might have something to do in producing the difficulty, and proposed that the glands should be removed, but as the parents would not consent, I substituted astringent gargles, and resorted again to assafoetida. The cough gradually left her under this plan, in the course of a week; but this being subdued, she began to have involuntary contractions of the muscles of the back, resembling St. Vitus' dance, and continuing about the same length of time with the previous paroxysms of coughing; the other muscles of

the body not seeming to participate in the convulsive movements. The child now ejected almost everything that she took into the stomach ; but there was no nausea or unpleasant sensation at the time. She was, also, becoming considerably emaciated ; I put her upon a course of carb. of iron, in doses of, perhaps, four to five grains, with assafoetida, when the paroxysms were most frequent. And as her meals were thrown up, I directed food to be given in small quantities at a time, often, and no more than could be easily retained. Under this course she has rapidly improved ; the paroxysms being much less severe, and less frequent, her strength is improving and she no longer ejects her food, when given as directed.

I should value highly any remarks you may be pleased to make upon the above case. I should have mentioned, that the child has a light complexion, and is fair, and has always been well, save that she has sometimes, not very often, thrown up her food. The parents too, though not remarkably vigorous, cannot be considered unhealthy.

I will crave but another minute of your time, just to tell you how the women increase and multiply the population here. Last fall, a woman living in this vicinity, brought forth three living children at one birth ; one died after a time, of disease, the other two are still living.

Day before yesterday, (20th,) I had just left the house where I had attended a case of childbirth, when I was called in another direction. The woman was but seven months advanced, and my advice was sought rather on the account of extreme anasarca of the legs and thighs, *and great* œdema of the labia pud., than in expectation of my services being needed obstetrically. She, however, was beginning to have premonitory symptoms of approaching labor, and I disposed myself accordingly ; thinking the labia might suffer injury from the passing of the child, I made a number of small punctures with a lancet in each, by which the swelling was reduced, and a large quantity of serum evacuated during the course of the labor. The abdomen was enormously enlarged, and the labor was slow, lasting some



twenty-four hours. It had been apparently near its termination for several hours, when two foetuses, in appearance of about six months growth, were suddenly expelled. One was in a state of incipient putrefaction, and the other, barely showed signs of life. Soon after, in searching for the after-birth, my fingers met a very large watery cyst, which as contractions proceeded, was soon ruptured, and an apparently seven months foetus was delivered by the feet. It was inanimate and there was no pulsation in the cord; but artificial respiration being instituted, it was after a time resuscitated.

Making still another examination after the lapse of a few minutes, the head of a *fourth* child was found to be rapidly advancing, and it was soon in this vale of tears. (I had to laugh when the woman asked me if I thought that was the last one.) It was more vigorous than the other, and the cord pulsated strongly. The two double placentæ were then extricated; the last adhering, slightly, it being necessary to detach it carefully with the fingers.

There was some hemorrhage but it was speedily arrested, and the woman was "comfortable and happy" when I left her yesterday.

The two first born were girls, the two last boys.

Respectfully, yours,

W. W. WELCH.

To Dr. Brainard,  
Chicago, Ill.

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#### ARTICLE IV.

*Remarks in relation to the Pathological Anatomy of the mucous membrane of the intestinal canal during infancy.* By Drs. FRIEDLEBEN and FLESCH, of Frankfort on the Main. From HENLE's and Professor LIETSCHRIFF's v. 3, 1846—1847. Translated from the German, for this Journal, by DANIEL STAHL, M. D., of Quincy, Illinois.

*Normal condition of the intestinal mucous membrane in the first period of life.*—It is constantly covered with a *thin layer*

(from the fecal matters,) of whitish or yellowish, mucous; a somewhat thicker layer leads us to suspect a morbid change. The mucous suffers no change of colour, from the morbid changes of the tissures, (except accidentally from medicine, &c., &c.) This layer of mucus, if it is very thin, and the parieties of the intestines atrophic and anæmic, can easily be taken for the mucous membrane itself. The *colour* of the mucous membrane is, in its natural condition, sometimes yellowish, at others grayish-white; changes can take place by imbibition of bile, medicines, blood, and by putrefaction. The *folds* in the small and large intestinal canal are present, even in the youngest subjects. The *adhesion* of the mucous membrane with the other membranes is very strong, excepting in the colon, where it is a little loose. The *consistence* is always very firm, so that the mucous membrane can never be removed by scraping with the back of a knife. The *solitar-glands* (isolated glands, I suppose—transl.) of the small intestines are not, in a normal condition, visible; neither are those of the large intestines in the natural condition; yet small, roundish, opaque points, which, however, are not prominent, are frequently seen. *Lieberkuehn's glands* cannot be seen with the naked eye, except in rare instances, in the form of small depressions. *Peyer's patches* are, even in early life, visible; their number changes from thirty-six, to sixteen, and even to six; the largest are near the valve of the coecum; they are smaller towards the upper part. Their form is elliptical, (from 4''' to 1½'' length, and 2''' to 4''' breadth.) Those on the ilium are well circumscribed. These glandular patches, can in the healthy subject, only be seen (with the exception of those near the valve,) by holding the gut against the light; they will then show themselves as opaque spots. Their easy visibility is a sign that they are morbidly affected. Their colour is in a healthy condition, either not at all, or only by a slightly grey colouring, distinguished from that of the mucous membrane; there are never to be seen vascular arborisations upon them. The arcolar structure of these glands is very early present.



The pathological condition of the intestinal mucous membrane of infants, (children in the first year,) in *atrophy* and *diarrhœa*, is according to the author's observations, the following:

#### A. CONGESTION.

*A. Congestion of the mucous membrane itself*; a rose or cherry colored, (never livid or violet,) redness, (rosige oder kirschrothe roethe,) which occupies large spaces of the mucous membrane, which, at times, extends to the size of 1 to 2", especially in the small intestines; at others, and oftener, it is confined to small spots or folds; and, at other times, again, it has the form of the aborizing branch of a blood-vessel. This redness extends, also, over the normal tissue of Peyer's patches, with the congestion, the adhesion of the mucous membrane with the serous, is very much diminished, but the consistence of the former is normal. The isolated glands are not visible as is the case in health.\* The congestion exists alone or in connection with inflammation of other parts of the mucous membrane, or that of its glands. This congestion is obviously a morbid increase, (Steigerung,) of the physiological condition; the diminished adhesion is in consequence of the increased amount of fluid in the submucous cellular tissue.

*B. Congestion of Peyer's patches.*—These are more easily visible, partly on account of their more areolar structure, partly on account of their partial (confined to isolated spots on the same) redness, whilst the rest of the mucous membrane is of the natural color. At the same time, the isolated glands, in the small and large intestines, are plainer to be seen, without, however, overreaching the level of the mucous membrane. This change, is certainly one of the most frequent causes of the transitory diarrhœa, which lasts but a short time, and occurs so frequently, even in strong children, especially during the process of teething.

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\*This seems to contradict the description of the normal condition of the glands.

*Query.*—Wherein consists the difference, (if there is any,) between Lieberkuen's and the isolated glands?—Translator.

## B. ACUTE INFLAMMATION.

A. It occurs in *acute erythematic inflammation*, but the authors have seen it, only, occupying small surfaces, and accompanied by severe diseases of other parts connected with the mucous membrane. Nor has it ever occurred in any considerable degree, in the isolated glands; but always either as a subordinate affection, with other severe diseases, or as an ulcerative inflammation.

B. *Primary acute inflammation of Peyer's glands*, is one of the most important, and not a rare disease of infancy. A more or less considerable number of the patches (generally ten or twelve, never all,) and not exclusively near the coecum, show a remarkable even cherry colored redness, and considerable puffing, and thereby a prominence above the mucous membrane. The redness is, on some, equally extended; on others, especially on those in which the disease has just commenced, in spots, here and there, occupying only the edges. The puffing out is a constant symptom, and shows itself from the single bold-relief to the genuine granulated appearance. In the latter case, the patch has the appearance as if it were laid in with innumerable small red grains. The consistence, especially of those most puffed up, is diminished, and the tissue, after an incision, is easily scraped off with the back of a knife. The redness, puffiness and diminished consistence commence always, gradually, at first confined to small spots of single patches; then come generally, diseased patches closer together, but between two diseased ones, are found such as are either sound, or only congestive. Often the patches thus diseased, are visible through the serous membrane, from without, and sometimes such places are indicated by great injection of the latter membrane. The Peyer patches thus reddened, and puffed, contrast greatly with the surrounding normal or slightly erythematic muc. mem. The isolated glands are either normal, or there are but few diseased. The mesenteric glands are mostly enlarged, a little injected, but of firmer consistence.

C. *Secondary acute inflammation of Peyer's glands*.—The



authors have found this inflammation only with tubercles; analogous to it, is the inflammation of the same organ in eruptive fevers, especially in scarlet. Its peculiarity consists in the circumstance that in consequence of its dependance on a disease of the skin, the inflammation does not appear so pure, and is more easily complicated, than in the primary form. Besides, in another principal affection, more or less numerous glandular plexus, manifest themselves, either uniformly, or in separate patches, deeply red, puffed, and in places even ulcerated. Also ulcerative inflammation of the isolated follicles of the small intestine, and simple development of the isolated glands of the large.

#### C. CHRONIC INFLAMMATION OF PEYER'S GLANDS.

This is the most frequent cause of the atrophy and marasmus, (abzehrung,) of the infant. Its anatomical character, is as follows: several glandular tissues show a coloring, which is, sometimes, entirely gray-blue, and sometimes, more slate-gray; and this contrasts much with the other, mostly pale mucous membrane, which latter, however, can, in but rare instances, in consequence of chronic inflammation, in places, be colored livid-gray. These deceased patches are much more visible than the healthy ones. Their areolar structure is effaced, the edges are sharply limited, with black points thereon. Sometimes their tissue is very thin, at others, there is some puffiness, according to the stage in which death takes place. *This chronic inflammation of Peyer's glands*, exists either, (and mostly,) alone, or there are, also, as a local complication, traces of inflammation in the mucous membrane, or in the isolated glands. The mesenteric glands, are never essentially changed. There are never complications with tubercles; but there is a great disposition to complication with other organs. (Pneumonia lobularis, hydrocephalus, &c., &c.)

#### D. EXULCERATION OF THE ISOLATED GLANDS.

*A. Primary exulceration.*—The proper primary inflammatory swelling, and exulceration of the isolated glands, is, upon the whole, a proportionably rare occurrence, whilst a swelling of the same, without inflammation, (so that they

appear upon the mucous membrane, as small, whitish bodies, of the size of a pin-head, or millet-seed,) takes place frequently in all other affections of the intestinal mucous membrane and its annexæ. The ulcerative inflammation of the isolated glands, constitutes, like the chronic inflammation of Peyer's glands, but more rarely the anatomical foundations of atrophy. Its characteristics are the following: a more or less extensive surface of the mucous membrane of the ilium is coated with small round ulcers of the size of a millet-seed, or lentil, answering to that of the isolated glands. They are, sometimes, isolated and scattered, at others, in patches, or two or three run into each other. They are not perceptible on the outside of the gut. There are no tubercles either on the ulcerated surface, nor on any other part. The isolated glands of the colon, Peyer's and the mesentric glands, remain either healthy, or are not essentially effected.

*B. Secondary exulceration.*—This is, in part, a manifestation of tubercles, and appears as such, frequently, with the secondary inflammation of Peyer's glands. The morbid changes of the isolated and Peyer's glands, in this case, resembles much, those which we, under similar circumstances, find in tuberculosis adultorum; yet in the latter there is often a perceptible deposition of tubercular substance at the bottom of the ulcer, and externally on the gut, which in children, is not the case. The anatomical characters are the same as in the primary exulceration, with this difference, that the exulcerated glands are surrounded by a strong, inflammatory halo. At the same time disease of Peyer's glands appear always to take place, and both are dependant on the presence of tubercular affections.

#### E. SOFTENING OF THE INTESTINAL MUCOUS MEMBRANE.

This is a frequent post-mortem appearance, and its character is of that kind, as not to admit of doubts, such as have been raised about the softening of the stomach, we can distinguish two varieties.

*A. Red softening of the intestinal mucous membrane:* a space of the mucous membrane, mostly of the small intestines, of



more or less extent, has lost its consistence in such a degree, that it can easily be scraped off with the back of a knife. Its color is on its larger surface normal, only on a few small, but connected spots, is seen a rosy tint which cannot be scraped off; there is, withal, a diminished adhesion even in places where there is no decrease of consistence. The tissue of the mucous membrane is frequently infiltrated, as if with serum, or as if changed into a homogenous jelly. In such places the texture of the mucous membrane cannot be recognized. The walls of the intestinal canal are, in such places, easily torn. The changes which at the same time take place in the isolated glands, Peyer's patches and mesenteric glands, are of inferior importance.

*B. White softening of the intestinal mucous membrane.*—The anatomical character is the same as in the red softening, only the mucous membrane, (like the whole wall of the gut,) is distinguished by a remarkable paleness according as the muc. mem. is simply softened, or more gelatinous, (more succulent) do we find the mass, removed with the back of a knife, and which is the residue of the mucous membrane, more or less voluminous. Here, also, is always diminished adhesion. This white softening occupies larger spaces than the red, obviously, in consequence of its longer existence. Peyer's patches are, without any other change, more easily perceptible, probably, because of the greater paleness of the mucous membrane. This white softening, always of a chronic character is, also, one of the post-mortem appearances in cases of atrophy in children. The gradual transition of the red, into the white softening, and the analogous appearances in other organs (e. g. in the brain) proves, that the starting point of this white softening is an inflammatory condition of the tissue of the mucous membrane.

The authors now think themselves justified in the following *resumé*: 1. The changes of the intestinal mucous membrane are frequent, perhaps the most frequent, post-mortem appearances of the infant age. 2. These changes are partly the chronic, (the principal foundation of atrophy,) partly the acute (the conditional causes of the acute, very exhaus-

ting diarrhœa, which is often accompanied by cerebral affections and of many diagnosticated diseases, as softening of stomach. 3. These changes are in the same proportion frequent post-mortem appearances in the above mentioned conditions, as the most of those generally enumerated, are rare (such as enlargement of the mesenteric glands, softening of the stomach, aphthæ, &c., &c.) 4. These changes, likewise, are much more frequent than those of the stomach, which latter are, with the exception of the softening of the cul-de-sac, comparatively rare in infancy. 5. The changes in the mucous membrane, except the secondary ones, are in cadavers mostly separate. 6. The most frequent of all changes, is the chronic inflammation of Peyer's glands; this is also the most frequent anatomical foundation of the atrophy of children. 7. Next to this, but not more rarely, occurs the red and white softening as the cause of atrophy. 8. These softenings are but different stages of the same process; the simple and gelatinous softening, but different forms. 9. A more rare post-mortem appearance is the chronic exulceration of the isolated glands of the small intestines. 10. A disease, as yet, never appreciated, and very dangerous, is the acute inflammation of Peyer's glands. 11. This disease is a true phlogosis, as is also evident from its concomitant diseases, (croup, pneumonia.) 12. Most of authors don't know this disease, and the few who have seen its changes, confound it with dothinen-toritis, which does not occur in the first year of life. 13. The secondary acute inflammation of Peyer's glands and inflammation of the isolated glands, which exist mostly at the same time, form part of the tuberculous disease. The authors have always, in this case, found tubercles in the spleen, never in the intestines. 14. The authors have often observed the colitis of the French, but always confined to small spaces, and obviously as a slight affection in comparison to the other changes in the mucous membrane of the small intestine, which existed at the same time. 15. The mesenteric glands show themselves, except trifling redness and enlargement, in some cases, in a normal condi-



tion, their affection is never severe. Only in a general tubercular affection are they often partially infiltrated with tuberculous deposition. 16. The peculiarity and frequency of the above mentioned changes of the intestinal mucous membrane, on the one hand, and the rare occurrence of many diseases, already so important, in the second year (typhus, intestinal, tubercles) on the other, form one of the most prominent characteristics of the pathology of the intestinal mucous membrane in the age of infancy.

REMARK OF THE TRANSLATOR.—In order to transmit accurately the anatomical and pathological descriptions, I have preferred, in many places, a *verbal translation*, if it would convey the authors meaning plainly, to a *smoother style*, that might give room to ambiguity. I hope this remark will be received, in part at least, as an apology for the stiffness, &c., &c., of the style of this paper.

## II.

*Bonnet*, Chirurg des Hôtel-Dieu at Lyon, communicates in the Gazette de Paris, numbers 15, 16, and 18, 1843, in a long article, his experience and observations in relation to *cauterization as a preventive of phlebitis and of the absorption of pus*. He says, 1st. That superficial veins can be opened and destroyed with kali caustic, caustic vien, and zinc muriat., without producing suppurative phlebitis. 2d. Has phlebitis occurred in consequence of a simple or poisoned wound, then is cauterization with the hot iron a powerful remedy to stay the phlebitis in its progress. 3d and 4th. Hemorrhoidal, and other tumors, can also be safely destroyed by cauterization. 5th. The destruction of the whole inner surface of large abscesses with a hot iron or zinc. mer. prevents all bad consequences, which may follow the opening of large abscesses; cauterization can even stay these consequences.

## ARTICLE V.

*Report of Cases treated in the Dispensary of Cook County Hospital, from September, 1847, to January, 1848. By J. H. BIRD, M. D., attending Physician.*

Amaurosis, - - - 1	Hernia, - - - - 2
Amenorrhœa, - - - 4	Infantile Remittent, - 6
Asthma, - - - - 2	Leucorrhœa, - - - 2
Bronchitis, - - - 13	Menorrhagia, - - - 1
Corneitis - - - - 1	Neuralgia, - - - - 3
Corjunctivitis - - - 3	Pertussis, - - - - 1
Constipation, - - - 8	Pleurisy, - - - - 1
Dentition, - - - - 3	Porriogo, - - - - 6
Dilatation of Bronchi, 1	Remittent Fever, - 23
Diarrhœa, - - - - 20	Rheumatism, - - - 2
Dropsy, - - - - 1	Sarsocele, - - - - 1
Dysentery, - - - - 4	Scabies, - - - - 1
Dysmenorrhœa, - - 2	Scrofula, - - - - 4
Gravel, - - - - 1	Syphilis primary, - - 1
Intermittent Fever.	“ Tertiary, - 1
Tertian - - - 65	Synovial Infl. - - - 1
Quotidian, - - 45	Typhoid Fever, - - 6
110	Worms, - - - - 5
174	72
	174
	246

Intermittents were treated with quinine, salacine, cinchonine, singly, and in combination with the prussiate of iron. Quinine and Salacine combined, in the proportion of one part of the former to three of the latter, was administered with success in some cases. Strychnia was given in several cases, with less satisfactory results, than when administered for spring intermittents.

In cases accompanied with derangement of the stomach, salacine and cinchonine more effectually arrested the paroxysm than did quinine. Cinchonine was introduced and prescribed, during the last two months specified above. In doses similar to quinine it was quite as prompt in arresting the paroxysm. Being nearly tasteless. and less irritating than quinine, to the stomach, it is to be preferred, in



many cases, where the latter, from its bitter taste and irritating qualities, would be rejected.

It has been given with quite as satisfactory results in the remittent fevers, that have been treated during the short period of its trial; also, in several cases of the diarrhoea, premonitory to an attack of fever. From the success that has been met with in its use, and from its being less expensive than quinine, (at two-thirds the cost,) it is a very desirable remedy in the treatment of miasmatic diseases.

The cases of remittent fever were generally free from complication; when occurring, they were then treated in the usual manner, according to the complication. The treatment, generally adopted, was a combination of quinine or cinchonine with opium, sometimes with the addition of ipecac, as the appearance of the tongue might indicate, following the operation of a mild cathartic.

The cases of typhoid fever were treated in a similar manner to remittants, by the use of quinine and opium, with the exception, that opium was administered in much larger doses and more frequently, together with a free use of stimulants.

Nitric acid drink was prescribed, both in this and remittent fever, where indicated by the character of evacuations, and, also, during convalescence.

In the cases of asthma, the severe dyspnoea was greatly relieved by the inhalation of sulphuric ether. The patients not reporting themselves, the results of its administration were not ascertained.

Chicago, Feb. 28, 1848.

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#### ARTICLE VI.

*Aneurismal Varix of the popliteal space—ligature of the artery and vein. Hemorrhage, amputation, recovery.* By DANIEL BRAINARD, M. D., Professor of Surgery in Rush Medical College, Surgeon to the Chicago Hospital, &c. Enoch Kandall, æt. 21 years, had, in the month of June,

1842, a knife thrust into the popliteal space about two inches above the knee, and one inch within the outer ham string. The cut bled profusely at the time, but the hemorrhage was stopped by compresses and a bandage, and the wound adhered by first intention. At the end of about four weeks he began to feel a "fluttering," on placing his hand upon the part, which gradually increased. At the end of six months, he perceived a tumefaction of the part, and at the same time noticed that the veins were enlarged over the whole member.

In August, 1845, he had a slight scratch on the leg, which ulcerated; and this never healing, nearly the whole surface of the leg became ulcerated. He continued to labor until about a year since, when he was compelled to stop work.

January 24, 1848, it presented the following appearances:

There was a tumor filling the popliteal space and rising above its surface, encroaching upon the inner condyle of the femur. It gradually diminished as it extended upward and inwards till it disappeared about the middle of the thigh, and in like manner extended downward till it was lost in the calf of the leg, being circumscribed or having perceptible limits on the outer and inner sides. The color of the skin was natural; it was soft, elastic, fluctuating, gave a strong vibratory sensation to the touch, and pulsated strongly. It could be, in a great measure, removed by pressure, and diminished in size on raising the member or compressing the femoral artery. The veins over the whole limb, both capillaries and trunks, were greatly enlarged, and upon the inside of the leg was a varicose enlargement of the size of half an egg, which in common with the trunks pulsated strongly.

The young man's health was in other respects pretty good. He had been subject to intermittent fever, but had never experienced, so far as could be discovered by questions, any derangement of the functions resulting from the mingling together of the arterial and venous blood. He



was subject to hemorrhage, and had, several times during his life, nearly died of epistaxis.

The ligature of the artery was performed in presence of the class at the Medical College, Wednesday, January 26, 1848, as follows: The femoral artery being compressed where it passes over the pubis, and the member raised so as to allow the blood to flow out of it, a tourniquet was applied upon the thigh, about the middle, so as perfectly to interrupt the circulation. An incision was then made vertically over the middle of the popliteal space, about four inches in length. The sac being opened by this, a gush of blood, judged to be about eight ounces, took place, but in a few seconds the flow entirely ceased. Wiping out the sac with a sponge, a state of things very different from that usually described as constituting aneurismal varix, was found; instead of finding the sac constituted by the enlarged vein, as is sometimes the case, or being situated between the artery and vein, with an opening into each, as has been found in other cases, there was a common cavity into which all the arteries and veins seemed to open, both above, below, and around; the popliteal artery and vein, as they entered from above, being gradually enlarged for some distance, and a similar diminution taking place as they passed from the sac.

The branches of the popliteal artery were also enlarged where they opened into the sac; at least five orifices were seen there sufficiently large to admit a common sized silver catheter a short distance within them.

Owing to this gradual enlargement of the artery, it was necessary to enlarge the wound upward about two inches, when the trunk being found about two or three times its natural size, it was tied with the vein. The wound was then enlarged downward about an inch, and the artery greatly increased in size but with its coats thin like those of a vein, was, with the vein, also secured. The separating and securing these trunks was a thing of great difficulty, and was effected by passing a silver catheter into them, and raising them from their situations as far as could

be done. Having thus secured the vessels above and below, the tourniquet was loosened and for about two minutes no hemorrhage took place, but at length the blood returned in a full current and gushed out of the wound. The hemorrhage was arrested by tightening the tourniquet, and it was then determined to dissect up the sac and pass a ligature around it. This was carefully done, and when completed, the tumor formed by the sac, of the size of a hickory nut, was seen at the bottom of the wound. On again loosening the tourniquet it gradually filled with blood, but did not pulsate. Stitches and adhesive straps were then applied to retain the lips of the wound in contact, and a roller applied from the toes to the upper part of the thigh as tightly, as could well be borne, with compresses over the wound. The tourniquet was then placed loosely upon the thigh, to be tightened in case of necessity, and the patient carried to his lodgings, and placed in bed.

He supported the operation with great fortitude, and although it was long, he was not much depressed when it was finished. There was neither pain, nor coldness of the member. In the evening gr. x. of Dover's powder was given.

January 27—Morning. Has slept well ; pulse 100 and strong ; no pain ; gave a cathartic of inf. of senna. Evening : Cathartic operated well ; pulse 110 ; ordered v. s. to 18 oz. with gr. x. of pulv. Doveri.

28. Has slept well ; pulse 120 ; some heat of limb with oozing of serum from the wound. Ordered nit. pot. gr. v. with ant. tart.  $\frac{1}{4}$  gr. every two hours, with evaporating lotions to the member. Evening : Gave the Dover's powder.

29. Has rested well ; pulse 120 ; pain and tension in limb ; roller and compresses removed and re-applied ; treatment continued.

30. Has rested well, and has no pain ; pulse 100 ; swelling subsided ; slight discharging of puriform matter from wound. Nitre and tart. ant. discontinued ; corn meal gruel allowed for diet, and sul. mag.  $\mathfrak{z}$ i. was administered. Even-



ing: Salts operated well; gave Dover's powder and resumed the ant. tart. and nit. potash.

31.—Morning. Has slept pretty well; the oozing of serum commences to be yellowish from pus; pulse 110.

At three o'clock P. M., five days after the operation, while the patient was lying perfectly quiet in the bed, a profuse hemorrhage took place from the wound and before it could be arrested thirty ounces of blood were lost; by tightening the tourniquet the bleeding was arrested. On arriving I found him much exhausted. Being desirous of ascertaining the source of the hemorrhage, I loosened the tourniquet, and for a short time no bleeding took place, but at the end of about thirty seconds it commenced in a large, uniform stream of dark colored blood, which was not arrested by compressing the femoral artery at the pubis. This at once showed that the source of the hemorrhage was the sac, and that it was venous in its character. It also showed that amputation was the only remedy for the ligature of the branches entering the sac was impossible, and the principal ones were tied both above and below.

This was accordingly done by the circular method about the middle of the thigh. The fortitude of the patient was great, but the vital powers of the system were much depressed and required stimuli which were freely given.

Feb. 1. Has slept well; pulse 130; no pain; allowed gruel and demulcant drinks, an anodyne at evening.

He continued to go on very well until the 11th February, when as he was lying quietly in bed, a considerable hemorrhage occurred from the stump. On arriving, I found that this had been arrested by compressing the femoral artery, and as it did not return on removing the pressure, a tight roller with compresses and evaporating lotions were applied to the stump, and full doses of acet. of lead and opium given internally. The hemorrhage did not return, and at the present time, March 8, the stump is almost cicatrized.

It may be added that in proportion as the circulation in the member diminished in activity, the tissues shrunk away

so as to leave the bone too prominent, and in order to prevent the inconveniences of a conical stump, about two inches of it was removed.

On examining the limb it was found that the artery and vein, both above and below, had been perfectly included in the ligature, but in consequence of the great increase of the collateral branches, there was no coagulum in the femoral artery above the ligature. It was greatly enlarged and tortuous. The vein was greatly enlarged and thick, and full of coagulum. The coats of the artery below the aneurismal were thin like those of a vein, and the vein itself was greatly enlarged, forming sacs of the size of an egg; both artery and vein were filled with coagulum. The ligature of the sac had cut through and offered a large opening from which the blood came. There was no coagulum in the sac, the venous circulation having been actively kept up through it. The mouths opening upon its internal surface were found to be veins.



## PART II.—REVIEWS.

## ARTICLE VII.

*Physiological Anatomy and Physiology of Man, with numerous original illustrations.* By B. R. TODD, M. D., F. R. S., and W. BOWMAN, F. R. S., of King's College, London. To be completed in four parts, forming two volumes.

This most excellent work now being re-printed in this country, by the enterprising publishers, Lea & Blanchard, affords to the practitioner and student of medicine the best, if not the only means, of becoming acquainted with the numerous and important advances which have been made during the last five years, in general anatomy and physiology.

It is highly creditable to the authors of this work, that, to the exclusion of theory and speculation, known anatomical facts, many of which are the fruits of their own careful and laborious investigations in microscopic anatomy, are made to serve as the foundations for most of their physiological deductions.

“The study of anatomy,” say they, “must always accompany that of physiology, on the principle that we must understand the construction of a machine before we can comprehend the way in which it works. The history of physiology shows that it made no advance until the progress of anatomical knowledge had unfolded the structure of the body. There is so much obvious mechanical design in the intimate structure of the various textures and organs that the discovery of that structure opens the most direct road to the determination of their uses.”

The course pursued throughout the work is strictly in accordance with this view. A full description of the minute structure, constitution, and development of an organ or tissue, precedes, always, and is made the basis of conclusions with regard to its functions; physiological views of their own, and of others, are fairly and candidly given, but none are recommended as worthy of being received

and adopted, excepting such as are strictly in accordance with anatomical facts.

By pursuing such a course, (in our opinion the only proper one,) much additional information, both with regard to structure and functions of the animal organization, has been acquired, errors have been detected, and plausible theoretical views, not based on facts, have been made to appear less attractive.

The first eight chapters of the work treat of motion, and afford ample evidence of the ability of the authors to do justice to any subject.

It is well known to our readers that a few years since it was discovered that nearly all fluids contained moving particles, and that these were described, by several observers, as living animals, liable to be slain by thousands, whenever a man saw fit to quench his thirst with a glass of cold water.

The following quotation may serve to enlighten the credulous, and to quiet the consciences of the humane :

“The term *molecular motion* was used many years ago by Mr. Robert Brown, to denote a phenomenon which he had witnessed in the particles of various organic and inorganic substances in a state of extremely minute subdivision. When these particles were suspended in water, they exhibited, under the microscope, motions, which consisted in more or less rapid oscillations and rotations of the particles themselves. He found them in the pollen of plants, in many mineral and metallic substances, in various animal matters, reduced to a subtle powder, consisting of particles that ranged in diameter between the 1-15000th and 1-30000th of an inch. The movements are clearly not peculiar to living or organic parts, for they occur in inanimate ones: they never occur excepting when the particles are suspended in water, or some liquid; and they are attributable to currents produced in the fluid by evaporation at its surface or edges, for they may be arrested by covering the fluid with oil, or using other means to prevent such evaporation. They are not, therefore, inherent in the particles themselves, which only obey the impulse communicated to them by the currents created in the fluid which holds them in suspension.”



On cilia and the cause of ciliary motion our authors make the following remarks :

“Certain surfaces, which are, in their natural and healthy state, lubricated by fluid, are covered with a multitude of hair-like processes, of extreme delicacy of structure and minuteness of size. These are called *cilia*, from *cilium*, an eyelash. They are generally conical in shape, being attached by their bases to the epithelium that covers the surface on which they play, and tapering gradually to a point ; or, as Purkinje and Valentin state, they are more or less flattened processes, of which the free extremities are rounded ; and this latter form prevails in the human subject.

They vary in length from the 1-1000 to the 1-12000 of an inch. They are disposed in rows, and are adapted in their arrangement to the shape and extent of the surface to which they belong ; they adhere to the edges, or to a portion of the surface, of the particles, of the epithelium, preferring the columnar variety of them.

During life, and for a certain period after death, these filaments exhibit a remarkable movement of a fanning or a lashing kind, so that each cilium bends rapidly in one direction, and returns again to the quiescent state. The motion, when viewed under a high magnifying power, is singularly beautiful, presenting an appearance somewhat resembling that of a field of corn agitated by a steady breeze. Any minute objects coming in contact with the free extremities of the cilia are hurried rapidly along in the direction of the predominant movement ; one or more blood-discs, accidentally present, will sometimes pass rapidly across the field, propelled in this way, and very minute particles of powered charcoal may be conveniently used to exhibit this phenomenon, and to indicate the direction of the movement. The action of the cilia produces a current in the surrounding fluid, the direction of which is shown by the course which the propelled particles take.

An easy way to observe this phenomenon is to detach by scraping with a knife a few scales of epithelium from the back of the throat of a living frog. These, moistened with water, or serum, will continue to exhibit the movement of their adherent cilia for a very considerable time, provided the piece be kept duly moistened. On one occasion we observed a piece prepared in this way exhibit motion for seventeen hours ; and it would probably have continued doing so for a longer time, had not the moisture around it evaporated. However, Purkinje and Valentin have ob-

served it to last for a much longer time than this in connection with the body of the animal. In the turtle, after death by decapitation, they found it lasted, in the mouth, nine days ; in the trachea and the lungs, thirteen days ; and, in the œsophagus, nineteen days. In frogs, from which the brain had been removed, it lasted from four to five days. The longest time they observed it to continue in man and mammalia was two days ; but in general it did not last nearly so long. What appears to be immediately necessary to the continuation of the movement, is the integrity of the epithelial cells to which the cilia adhere ; for as soon as these shrink up for want of moisture, or become physically altered by chemical reagents or by the progress of putrefaction, the cilia immediately cease to play.

From these facts we learn two important points in connection with this phenomenon. The first is, the truly molecular character of the movement. Whatever be the immediate cause of the action of the cilia, it is evidently intimately connected with the minute epithelial particles to which they are attached ; for cilia never exist in man and the higher animals without epithelial particles, and these particles have no organic connection with the subjacent textures, excepting such as may arise from simple adhesion. And, secondly, we perceive, that this movement is independent of both the vascular and the nervous systems, for it will continue to manifest itself for many hours in a single particle isolated from the rest of the system. After death it remains longer than the contractility of muscle ; a circumstance which, together with the facts just mentioned, indicates that the cilia cannot be moved by little muscles inserted into their bases, as some have supposed. And experiment also shows this independence. If the abdominal aorta be tied, the muscles of the lower extremities will be paralyzed in consequence of their being deprived of their blood ; and on removing the ligature, and allowing the blood to flow, the muscles will recover themselves. But a ciliated surface is not affected at all in its movements, though the supply of blood to the subjacent tissues be completely cut off. Again, hydrocyanic acid, opium, strychnia, belladonna, substances which exert a powerful effect on the nervous system, produce no influence upon ciliary motion. In the bodies of animals killed by these poisons, the phenomenon is still conspicuous ; and even the local application of them does not hinder it, provided the solutions do not injure the epithelial texture. Shocks of electricity



passed through the ciliated parts, do not affect the movement. Lastly, the removal of the brain and spinal cord in frogs, by which all muscular movements are destroyed, does not stop the action of the cilia. This striking fact may likewise be adduced to disprove the supposition, that these movements result from the action of minute muscles; for, although muscles may be excited to contract without nerves, we have no instances in the higher animals in which they habitually act without the interference of the nervous system; nor is it likely that a movement existing over so extended a surface, as that by the cilia, would, if effected by muscles, be independent of nervous influence.

What is the cause of ciliary motion? We have shown it to be independent of the blood and of the nerves, and to resist those depressing causes which usually put a stop to the action of contractile tissue. It requires for its continuance three conditions: a perfect epithelium cell; moisture, not of too great density; and a temperature within certain limits. From Schwann's observations it appears that cells exhibit a power of endosmose; that a chemical change occurs in the fluids in contact with them; and that a movement of their internal granules may be seen under certain circumstances. If ciliated epithelium cells exert an attraction of endosmose upon the surrounding fluid, may not this physical phenomenon afford a clue to determine the cause of the movement."

The recently developed facts concerning the structure of bones, and especially with regard to the manner in which their nutrition is provided for, are among the most interesting.

The vascular membranes to which the blood vessels for the nutrition of bone are distributed, are the periosteum upon the surface, the medullary membrane lining the large cavities, and the reflections from both of these into the Haversian canals. Intervening between these membranes and the surfaces, both external and internal, with which they lie in contact is found a layer of nucleated cells with a basement membrane, by means of which the nutritious material is withdrawn from the capillaries, and transmitted to the bony structure composed of granules and a beautiful system of pores and cavities, described in the following extract:

"The most interesting points in the minute anatomy of bone relate to the mode in which nutrition is provided for in those parts not in immediate contact with the blood-vessels. We have already seen that considerable masses of cartilage derive their nutriment from vessels placed on their exterior only, apparently by a kind of imbibition, perhaps aided by the presence of the nucleated cells, and by a more or less fibrous texture: but bone, which is of a far harder and denser nature, is unable to imbibe its nourishment so easily. Hence its surface is greatly augmented by the arrangements already detailed; and, in addition to this, the osseous tissue itself is provided with a special system of microscopic cavities and canaliculi, or pores, by which its recesses may be irrigated, to a degree of minuteness greatly exceeding what could have been effected by blood-vessels alone, consistently with the compactness and density required in the tissue. The study of this delicate apparatus will now demand attention, but a few words must be premised on the ultimate structure of the *osseous tissue*.

It appears from the researches of Mr. Tomes, about to be published in the Cyclopædia of Anatomy, that the ultimate structure of the osseous tissue is *granular*. The granules of bone are often very distinctly visible, without any artificial preparation, in the substance of the delicate spiculæ of the cancelli, viewed with a high power, and in various sections of all forms of bone.

Where bone exists naturally in an exceedingly attenuated form it may consist of a mere aggregation of these granules, unpenetrated by any perceptible pores. This constitutes the simplest form under which the tissue can present itself.

But all the osseous tissue with which the human anatomist is concerned is of such bulk as to contain the series of pores and cavities already alluded to for the conveyance of fluid from and to its vascular surface. These *pores* always advance into the bone from open orifices on its surface. They soon arrange themselves in sets, each of which, after anastomosing with neighboring ones, discharges itself into a small cavity or *lacuna*, in which its individual pores coalesce. From the sides of this lacuna other pores pass off to similar cavities in the vicinity, and others proceed from its opposite surface to penetrate still deeper into the tissue. These pour themselves into another lacuna, or divide themselves between two or three, which are connected in like



manner by lateral channels. From these again pass others, which pursue an onward course from the surface ; and so on, until the whole substance of the bone is perforated by them. The pores from the further side of the extreme lacunæ either open on the surface of the bone which they may now have reached, or else take a recurved direction back into the tissue.

When this beautiful system of microscopic pores and cavities was first seen, it was not recognized as such. The lacunæ were imagined to be solid *corpuscles* (a name still commonly applied to them,) and the lines radiating from them to be branching threads of the earthy constituent of bone. They may be proved in many ways, however, to be real excavations in the tissue. With a sufficiently high power their opposite walls can be distinctly seen, as well as their interior ; but the most conclusive evidence lies in our being able to fill them with fluid."

The following quotation from the British and Foreign Medico-Chirurgical Review, for January, 1848, shows that interesting discoveries are still being made :

"The chief purpose of this paper is to draw attention to the differences that exist between the bones of different animals, in regard to the size and form of the osseous lacunæ, and the number and mode of radiation of their canalicula. In Mr. Quekett's opinion, these characters are sufficiently definite and constant to serve for the determination of the class, and sometimes even of the order, to which the animal belonged, from the microscopic examination of even a minute fragment of one of its bones. If this should be capable of satisfactory proof,—and we have great confidence that Mr. Quekett would not advance any general statement of this kind but as the result of sufficiently extended researches,—the test is one of great importance in palæontology, whilst the fact is one of high interest to the physiologist. We may notice that Mr. Bowerbank has arrived at the same general conclusions ; and has specially applied this test to the determination of some doubtful wing-bones found at the Isle of Sheppey. The question lay between their having belonged to a long-winged sea-bird, such as the albatros, or to a gigantic pterodactyle ; and it was decided, unequivocally as we believe, in favor of the latter, thus enlarging our ideas of the size of these flying lizards of the ancient world, since the creatures of which the fragments in question formed part must

have had a spread of wing not less than twelve or fourteen feet."

Muscular fibres, as determined by all recent investigations, are found to be of two kinds; the striped, composing all the voluntary muscles, and found, also, in those of the pharynx and heart; and the unstriped, constituting the muscular coats of the stomach, intestines, bladder, uterus and other contractile organs and tissues not influenced by volition.

"The voluntary fibre always presents, upon and within it, longitudinal dark lines, along which it will generally split up into fibrillæ; but it is by a fracture alone that such fibrillæ are obtained. They do not exist as such in the fibre. And, further, it occasionally happens that no disposition whatever is shown to this longitudinal cleavage; but that, on the contrary, violence causes a separation along the transverse dark lines, which always intersect the fibre in a plane perpendicular to its axis. By such a cleavage, discs, and not fibrillæ, are obtained; and this cleavage is just as natural, though less frequent than the former.—Hence it is as proper to say that the fibre is a pile of discs, as that it is a bundle of fibrillæ; but, in fact, it is neither the one nor the other, but a mass in whose structure there is an intimation of the existence of both, and a tendency to cleave in the two directions. If there were a general disintegration along all the lines in both direction, there would result a series of particles, which may be termed *primitive particles* or *sarcous elements*, the union of which constitutes the mass of the fibre. These elementary particles are arranged and united together in the two directions. All the resulting discs as well as fibrillæ are equal to one another in size, and contain an equal number of particles. The same particles compose both. To detach an entire fibrillæ is to abstract a particle of every disc, and *vice versa*. The width of the fibre is therefore uniform, and is equal to the diameter of any one of the discs. Its length is the length of any one of its fibrillæ, and is liable to the greatest variety.

"The striped fibre is enclosed in a tubular sheath or *sarcolemma*, adapted to its surface, and adhering to it. This consists of a transparent, very delicate, but tough and elastic membrane, which isolates the fibre from all other tissues. In general, it has no appearance of any kind of structure; but in the case of bulky fibres, where it is strong in proportion, faint indications may be detected of a complex in-



terweaving of filaments far too minute to be individually recognized. It occasionally has small corpuscles, the remains of cell-nuclei, in contact with it.

“Every fibre is attached by its extremities to fibrous tissue, or to some tissue analogous to it ; but an accurate examination of this difficult subject lends no countenance to the ordinary received opinion, that the tissue is prolonged over the whole fibre from end to end, as its cellular sheath ; nor is this view reconcilable with the physical requirements of the case. It is extremely difficult to isolate a muscular fibre, with the tendinous fibrillæ pertaining to it, either in mammalia or birds ; but this may be occasionally accomplished in fishes, and in certain muscles of insects. In these examples, the minute detachment of the fibrous tissue may be seen to pass, and to become attached to the truncated extremity of the fibre. The fibre ends by a perfect disc, and with the whole surface of this disc the tendon is connected and continuous. The sarcolemma ceases abruptly at the circumference of the terminal disc, and here some small part of the tendinous material appears to be joined to it.

“Muscles grow by an increase, not of the number, but of the bulk of their elementary fibres : there is reason to believe that the number of fibres remain through life as it was in the foetus, and that the spare or muscular build of the individual is determined by the mould in which his body was originally cast.”

The unstriped fibres “consist of flattened bands, generally of a pale color, bulged at frequent intervals by elongated puscles, similar to those of striped muscle and capable of being displayed by the same process. The texture of these fibres seem to be homogeneous. By transmitted light, they have usually a soft, very finely mottled aspect, and without a darkly-shaded border. Sometimes the mottling is so decided as to appear granular, and occasionally these granules are arranged in a linear series for some distance. This condition is probably an approach towards the structure of the striped fibre, for these granules are about the size of the sarcous elements already described.”

Muscles receive their nutrition from capillary vessels of a size to admit of the passage of but a single row of blood globules, and consisting of “longitudinal and transverse vessels : the longitudinal always following the course of the elementary fibres, and lying in the intervals between

them ; the transverse being short communications placed at nearly equal distances between the longitudinal ones. and crossing nearly, or quite, transversely over or under the fibres."

Nerves distributed to muscles are found to pass, like blood vessels, between the primitive fibres and to cross them not transversely, like the capillaries, but obliquely ; the ultimate tubules of the nerves, separating into sets of two or more and ultimately from each other, forming arches and returning either to another or to the same trunk from which they set out.

"In this loop-like course they accompany to some extent the minute blood-vessels, but do not accurately follow them in their last windings, since their distribution is in a different figure. They pass among the fibres of the muscle, and touch the sarcolemma as they pass ; but, as far as present researches have informed us they are entirely precluded by this structure from all contact with the contratile material, and from all immediate intercourse with it. How then shall we explain the transmission of the nervous influence to a material thus enclosed? If it were wise or safe to go a single step in advance of pure observation on so obtruse a question, we might suggest, resting on the seemingly sure ground of exact anatomy, that this influence must be of a nature capable of emanating beyond the limits of the organ which furnishes it. But further than this, as to how, or to what extent this influence may so emanate, or as to what may be the nature, it would, perhaps, in the present state of knowledge, be hardly warrantable even to speculate."

For want of time and space, we are compelled to defer for the present, making quotations from other still more interesting chapters. We hope to be able to give at some future time that degree of attention which it merits to other portions of the work. H.



## PART III.—BIBLIOGRAPHICAL NOTICES.

## ARTICLE VIII.

*The Half Yearly Abstract of Medical Sciences.* Edited by W. H. RANKIN, M. D. &c. &c., No. 6. July to January, 1838. (From the Publishers.)

The deservedly high reputation of this most excellent work is fully sustained in the number before us.

Its analytical digest of the contents of new works, and the reports which it gives on the progress of Medicine during the preceding six months, afford a greater amount of information, in a condensed form than can be obtained elsewhere for any thing like the trifling sum of 75 cents, the cost of a number.

No practitioner should neglect to supply himself with so valuable a source of information.

## ARTICLE IX.

*The Principles and Practice of Midwifery.* By DAVID H. TUCKER, M. D., Professor of the Principles and Practice of Medicine, and formerly of Obstetrics, &c., in the Franklin Medical College, Philadelphia. (with numerous illustrations.) Philadelphia, Lindsay & Blakiston. 1848. pp. 485, 8vo. (From the Publishers.)

This work is the first of a series entitled "The Medical Practitioner's and Medical Student's Library," which the enterprising Publishers are preparing for publication. The several numbers of the series are to be published in "a cheap form, and at one half the usual price of Medical Books," thereby affording to the members of the Profession, possessing limited means, an opportunity of procuring valuable books at a small cost.

The work in question, is "a concise and practical treatise upon Obstetrics," compiled from the latest American,

English and French works, designed more particularly for the use of Medical Students, but is well deserving of a place in the Library of the Practitioner, as a book for reference and study.

The Publishers give notice that this will soon be followed by others of the series, treating upon the different Elementary and Practical Branches of Midwifery—each volume complete in itself.

From our examination of the work, we would recommend it, together with the Library, to members of the Profession in the West, as a valuable addition to our Medical Literature.

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ARTICLE X.

*Twenty-seventh Annual Report of the Bloomingdale Asylum for the Insane.* By PLINY EARLE, M. D., Physician to the Asylum, 1848.

*Fifth Annual Report of the Managers of the (New York) State Lunatic Asylum, made to the Legislature, Jan. 1848.*

*Report of the Pennsylvania Hospital for the Insane for the year 1847.* By THOMAS S. KIRKBRIDE, M. D., Physician to the Institution. Published by order of the Board of Managers, 1848.

The reports before us furnish most gratifying evidence of the prosperity of these institutions and show most conclusively, that by every years experience, new facts are developed with regard to the best mode of treating and managing this unfortunate class of our fellow beings.

Out of 274 cases there have been discharged from the Bloomingdale Asylum 58 cured, 17 much improved, 23 improved, 18 unimproved—total 116. New York State Asylum reports as discharged 1,137, in conditions as follows: recovered, 640; improved, 269; unimproved 114; died, 114. Total discharged from the Pennsylvania Hospital 213, as follows: cured, 111; much improved, 21; improved, 29; stationary 23; died, 29.



## PART IV.—SELECTIONS.

1. *On a New Criterion for the Regulation of Blood-letting.* (From a Review of Polli's Researches on the Blood. Med. Chirurg. Rev., Oct. 1847.)

[This criterion is deduced from the author's former series of researches, and confirmed by practical application in the hospital. It is thus stated to be "*The period of coagulation of the blood observed at different intervals of time between the abstractions, and in different portions of the mass taken during one blood-letting;*" and is amplified as follows :]

"1. Every time a large abstraction of blood is practised so as to lead to lipothymia, *the last portion* of that removed always coagulates with *greatest promptitude*, whatever may have been the time occupied by the first portion in coagulating. 2. Whenever, on the contrary, upon a person suffering from sanguineous congestion of the nervous centres, asphyxia, apoplexy, &c., bleeding is practised, and, by its use, the vital functions are again set at liberty, the last portion of the blood so removed coagulates *much more slowly* than that which was first emitted. 3. That it suffices to interrupt in some manner the course of the blood in the vein, or to diminish, by means of a ligature applied to an extremity, the irradiation of the nervous power, in order to secure the speedy coagulation of blood, which, a short time after, owing to the obstacles being removed, may reacquire the power of remaining long without coagulation. 4. That in diseases decidedly of an inflammatory and grave character, during which for the safety of the patient repeated blood-letting is requisite, if, on the occasion of every venesection, the coagulation of the first and last portions drawn be examined, it will be found that at the beginning the coagulation of the latter portion takes place *subsequently* to the former, and continues to do so in an equal ratio to the development of the morbid process, until this reaches its height. From this point, however, as the disease commences declining, the coagulation of the blood of the latter portion *precedes* that of the former. 5. That in cases in which abstraction of blood has been desisted from for some days, when the *slow coagulation of the last portion* taken announced a continuance of the phlogistic increment and the tolerance of blood-letting, it has become necessary to resort anew to this therapeutical agent, which can in no

case be laid aside with the ready cure of the patient, unless the latter portion of the blood manifest an opposite disposition to that now pointed out. 6. That in opposite cases, in which the abstraction of blood is persisted in *notwithstanding its rapid coagulation* after all the venesections and during the two extreme periods of the same one, it has to be speedily renounced in consequence of the symptoms of intolerance which manifest themselves; and in those few unfortunate cases in which blood-letting is obstinately persevered in under the guidance of fallacious symptoms, vital exhaustion cuts short the career of the patient much more rapidly than would have done the course of the disease.

“It results, then, from these observations, that the maintenance of the fluid state of the blood, comparing one bleeding with another, or different periods of the same bleeding, is a measure of the vital energy proper to the individual, and of that brought into play by the morbid process; and that hence may be determined tolerance and indication of blood-letting; as on the other hand a prompt coagulation of the blood announces diminution of vital energy, or its exhaustion by the pathological action; and in every case that the power of governing the phlogistic or morbid vital movements is lowered.”

[The criterion is of easy application, the first and last portions of blood drawn being separately collected in glass vessels, and placed at rest beyond the influence of disturbing causes before adverted to. As the difference of time employed by the blood in coagulating depends both upon the condition of the individual and the amount of blood drawn, the criterion in question may not only serve as a guide in judging of the propriety of bleeding in a certain contingency, but may determine the exact quantity to be drawn, and the period of its repetition.]

“Let an individual be bled to faintness, and you will always have the last portion of the blood rapidly coagulated, and consequently deprived of buffiness. Receive the blood into six, eight, or ten small recipients, of a similar form and nature, and the coagulation in the first will be in exact relation with the disposition of the fibrine to maintain itself in the liquid form proportionately to the particular physiological or morbid state of the organism; while in the last, such disposition will become gradually paralyzed and almost destroyed, from the gradually increasing effect of the abstraction itself. By contemplating this phenome-



non, which is always a result bearing proportion to the two influences above alluded to, we are enabled to lay down a rule for in some cases practising abundant blood-letting at one time, in others practising it at intervals, or in small quantities ; or again simply interrupting its flow once or twice for some minutes during the abstraction, &c., accordingly as we may be desirous of obtaining a sudden subdual of the morbid exuberance of the vascular activity, or of securing a copious depletion without too great exhaustion of the strength, or the functional disturbance ensuing upon lipothymia, which may injuriously effect the regular course of some affections.

“ From the different coagulation of the various portions of blood we may, moreover, as we have said, measure the *intensity of the inflammation* and the *tolerance of the individual* ; or, as others would express it, we may measure the morbid capacity and the amount of diathesis. There may, indeed, be a case in which the first portion of blood drawn indicates by its very slow coagulation a very high pathological condition, while the last portion announces in its rapid coagulation that the emission of blood has completely lowered the powers. This phenomenon may be dependent upon the existence of a very circumscribed, though a very intense affection, or upon exhaustion induced in an individual primarily possessed of very feeble powers of organic reaction ; and in such a case bleeding must be most reservedly employed, and frequently entirely rejected, for the reason that it is a less danger to leave the disease to proceed unchecked, than to have recourse to means which remove it and the patient together. This difficult pathological circumstance, which a celebrated Italian physician justly compares to an *island of fire in a sea of ice*, is already known to practitioners as one which requires in the use of antiphlogistic measures great regard to be paid to the failure of the general strength. But, unfortunately, it has not always been easy to establish its diagnosis in time, or before unadvisably energetic therapeutical procedures have been put into force. But the criterion I propose informs us of these two opposite conditions co-existing in the same individuals, and measures their degree with a facility and security that no method of investigation hitherto recommended in these difficult cases can boast of.”

[To the objection that the criterion only comes into operation after the abstraction of blood, Dr. Polli observes that in ordinary inflammatory diseases, the repetition of the blood-

letting is the point to be inquired into ; and that, even in those rare cases in which the diagnosis is very obscure, and in which a first bleeding might prove the cause of safety or of death, no harm whatever, and much good, would result from a very small *exploratory* venesection, and made in the view of obtaining the desired information. Such, consisting of one or two ounces, received in two separate vessels, should be instituted in all obscure cases of this kind, before resorting to an ordinary venesection.] “Perhaps even those small bleedings should be practised in all diseases indistinctly as a means of exploring the condition of the blood, for the same reason that, since auscultation has been employed upon all patients, it has not unfrequently revealed latent morbid conditions, to which the attention of the practitioner might otherwise not have been called until a more remote and a too late period.” [A small subtraction which can do no harm to the economy, will yet depict to us the true characters of the vital condition of the tissues, and of the amount of the exaltation of the vascular activity and nervous function. It often suffices for the discovery of those circumscribed and concealed phlegmasiæ, which, frequently not spreading to such organs as would furnish external symptoms of their existence, pursue their undermining course until they have reduced the viscera they affect to such a condition, that some acute contingency at last suddenly betrays their formidable character.]

“Although the preservation of its fluidity by the blood, or the more or less time it requires for coagulation, constitutes for us the most certain measure of the activity of the phlogistic force, this is however, only curable in its indications in proportion to the stability of the morbid process itself. The phlogosis may, during its course, spontaneously increase or diminish in intensity, accordingly as it extends to neighboring tissues, or is confined to those first invaded. So that the different resistance of the blood to coagulation, which in every case announces with a rare exactitude the present state, cannot be extended, except within certain limits, to the indication of that which is to follow ; since this latter can only be the complex and simultaneous effect of the condition of the development of the pathological lesion, and of the modification which the blood-letting itself may have induced. Our criterion, as expressing the present state of the organism, and the impression which the bleeding has developed, furnishes indications which are available for about twelve hours after, and may continue to



be so for a much longer period, even to the supervention of complete health, providing new morbid causes and accidental inflammation do not supervene and complicate the course of the disease. And of this we may assure ourselves by the repeated observation of the coagulation of blood taken at brief intervals; since the times employed in the coagulation of the blood taken at the successive abstractions will generally glide, whether these are diminishing or increasing, gradually into each other, sudden variations not being observable, save when exacerbations or irregular complications coincide."

[In corroboration of the above views, tables are furnished of twenty cases of inflammatory disease observed in the hospital, for the relief of which were collectively performed 147 venesections. Notes to each case reported exhibit the author's views of the amount of corroboration derivable from it. Some of these are highly interesting, but we have only space to notice some of the practical conclusions he arrives at.]

"The observations already made upon the indications the physician may draw from the observation of the coagulation of the blood, and the clinical cases adduced in confirmation and illustration of this criterion, clearly prove that its value rather lies in its enabling us to fix a limit to the abstraction than in encouraging its continuation. And, in fact, if we are not deceived, the comparison of the coagulation of the first and last portions may, independently of the presence of all other symptoms, distinctly indicate whether the evacuation will tend to normalize the vital powers of the functions of the organism, at one time liberating them from oppressive congestions, and at another from the obstacles presented by the excessive and unbalanced action of the nerves, or whether it attacks them with all its impoverishing effects, and directly exhaust the forces necessary to the carrying on of life. Of the two indications which this sign offers the least is not only the most important, since its neglect almost amounts to a fatal result in the disease, but it is also the most attainable, or at least the best supported by facts. The cases referred to show that, if the coagulation takes place with a certain celerity, and this manifests itself repeatedly, and goes on increasing with the blood-letting, we cannot persist in the measure without losing the patient; while the patient hardly ever dies when it is suspended prior to the coagulation having acquired great rapidity. \* \* \* \*

"It is not necessary for the complete cure of an inflammation to continue the bleedings until the blood no longer gives any buffiness ; while it is absolutely necessary to cease the omission when the blood coagulates more rapidly than in the normal state. The production of buffiness of blood of equal coagulability, as shown in the former series, is always rendered more easy and in larger quantity after a certain number of bleedings than at first, in consequence of the diminished density which the blood acquires, which naturally always much diminishes the phlogistic expression, and the consequent indication for bleeding drawn from the crust that covers the blood after a certain number of emissions. The crust or buffiness, in fact not being *essentially* produced by an increase of fibrine, by a diminution of red globules, or by an attenuation of the serum, but arising from a certain slowness of the coagulation, (of that faculty by which, in certain morbid conditions of the organism, and especially under the influence of the phlogistic process, the fibrine has acquired the power of maintaining itself in a state of fluidity for a period always much longer than in the normal state,) it may at once disappear by the operation of whatever modifies that slowness. When the phlegmasia is subdued, and the morbid reactions give way to healthy movements, the blood will then undergo coagulation in a period of time that does not permit the appearance of the buffiness. It happens not unfrequently that if, for some reason independently of a reproduction of the phlegmasia, we draw blood during the advanced convalescence of a severe inflammation, in the treatment of which bleeding has been suspended, while the blood was yet covered with a firm phlogistic crust, it will now be found to present no trace whatever of this. A patient may have blood in circulation which if drawn would furnish a buffy crust, and who will yet be perfectly cured without blood-letting. This change in the blood within the vessels, without profuse crises inducing the belief that the morbid matters supposed to be indicated by the buffiness had been evacuated by other channels, frequently excited the surprise of the ancients ; but faithful to observation, they had nevertheless laid down as a canon "*Ob solam crustan inflammatoriam venæsectio repetenda non est.*" (Quarin, *Met. Med. Inflam.*, p. 70.)—Rankin's Abstract, Jan. 1848.

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2. *On the Treatment of Fever by Cold Water.* By WILLIAM GILL, M. D., Physician to the Nottingham Dispensa-



ry, &c. (Provincial Medical and Surgical Journal, September 22.)

[In our last volume, p. 3, the reader will find a communication by Mr. Stallard, of Leicester, upon the efficacy of the external application of cold water as a refrigerant and sudorific in fever; we continue the subject by the following abstract of a paper which was read at the last meeting of the Provincial Medical and Surgical Association.]

“Before entering more immediately on the object of this paper, the author describes concisely the general features of the prevalent fever. In most cases the *immediate* cause of the attack was traceable to sleeping in crowded lodging-houses, the usual abode of fever in large cities; the proximate causes, doubtless, were over-fatigue, and insufficient and unwholesome food. The term “hunger pestilence” has been aptly applied to the disease. A true typhoid gastro-enterite was present in many of the patients, closely resembling what so frequently is observed in the Parisian hospitals. Whether the essentiality of the fever existed in the condition of the muco-alimentary membrane or not, it was not the author’s intention to discuss. This, however, he remarked, that *so soon* as the signs of gastro-alimentary irritation were subdued, the signs of general fever subsided. Some two or three cases, which he read, corroborate this observation. In the generality of patients under his care, not only was the gastro-alimentary membrane affected, but also the muco-pulmonary, as evinced by cough, shortness of respiration, and frequently universal sonorous râles, affecting the whole of the chest. In most of the Irish sick, the skin was spotted with petechiæ, of different sizes and color, chiefly developed on the abdomen and chest. This was not remarked amongst the English cases. There was no discharge of blood from the inner membranes. (Edema of the lower extremities occurring early in the disease was generally a fatal symptom, though we had two cases of recovery in boys, who were universally anasarcaous from the commencement. The disturbance of the sensorium was marked by a low muttering delirium, sometimes wandering about the bedroom, constant picking at the bedclothes, and subsultus tendinum. Some were affected with a heavy, comatose, and stupid state, from which they were with difficulty aroused, and when aroused, with difficulty were made to understand questions; they relapsed immediately into the same lethargic condition when left to themselves. This comatose condition oft-

en continued till convalescence was established, and in some even later. It seemed a perfect prostration of all mental energy, and was only relieved as the bodily powers regained their tone. In no one case did active delirium occur. The secretions from the bowels were thin, frequent, black, and offensive, and often attended with severe griping, but no bloody discharges. The function of the bladder in one or two individuals was suspended, and it was necessary twice daily to use the catheter. The usual period of the termination of the fever seemed to be from the eighteenth to the twenty-first day, at which time the patients were left in a state of the greatest prostration. When the case terminated fatally, an unrousable, unconscious coma closed the scene. The usual symptoms of fever were generally present,—as the hot dry skin, black tongue, urgent thirst, pulse varying from 90 to 130, insomnia, and pains in head, back, and limbs, &c. After this brief description of the general features of the disease, he proceeds to the treatment.

He remarks that he is well aware that a great prejudice exists in the profession against the treatment to be advocated, partly because it is opposed to preconceived opinions, and chiefly from the unprofessional manner in which it has been ushered into notice. Feeling certain, however, that he was addressing a body of gentlemen willing to receive *truth* for the *sake of itself*, he, with perfect confidence, detailed a treatment of fever as yet untaught in the schools, and generally unrecognized by the profession.

Dr. Currie, of Liverpool, was the first scientific English physician who enlisted cold water as an external remedial agent in the treatment of fevers. Successful as the practice was under his direction, it has been little followed in later times. It is only within the last few years that the prejudices which existed against the internal and external use of water has begun to subside. “Perhaps,” observes the author, “the prominence of the sanitary questions, and the many evils proved to arise from the want of a due supply of pure water, has had much to do in removing this groundless prejudice, and may have produced an undue reaction in its favor, causing it to be considered *not only* as necessary to a healthy condition, but as a *curative agent* of universal efficacy. Hence, perhaps, the public mind has been somewhat prepared to receive the hydropathic theory with much more favor than its intrinsic merits demand.—An universal remedy will ever find many advocates, and in a numerous profession like ours, there are ever men to



be found who, from selfish motives, will pander to this diseased taste of the public mind. We as an association, must ever protest against such exclusive theories as prevail in our days, being in our opinion unscientific, opposed to experience, and calculated to lead to incorrect views respecting the power of many known and valued medicinal agents. In making this protest against any exclusive theory for the cure of diseases, we must not rush into the opposite extreme, and, from disbelief of their universal efficacy, deny their particular efficacy, when the touchstone of experience speaks to the contrary."

The plan the author has adopted for the cure of fever, has been a modification of Dr. Currie's. Instead of pouring buckets of cold water over the body, he has it enveloped in a wetted sheet, an instrument more effective than Currie's in respiration, which did not uniformly follow his plan. The fear of evil consequences from the treatment is groundless. He gives no opinion as to its utility, except in cases of fever. Here, however, he states that he can speak with confidence. When the skin is burning hot, and the mouth and tongue parched, the application of a sheet wrung out of cold water, and applied *closely* to the whole surface of the body, and evaporation prevented by the application of three or four blankets placed over it, produces a most grateful feeling of refreshment, which is soon followed by a more or less warm perspiration. In young people, this perspiration breaks out in from five to ten minutes after its application; in middle-aged people the period is longer. Many uncomfortable sensations are soon relieved by its use; such as muscular pains in the back, thighs and legs, and the sense of aching and weariness; the thirst often becomes less, and even the dry tongue sympathises with the relaxing influence induced on the cutaneous surface. He has seen the low moaning delirium subside whilst under its use; and some patients, who have not slept before, doze, especially if the hair has previously been cut short, and a flannel nightcap, wetted with vinegar and water, been applied to the head.

The simple plan he has followed has been this:—On a flock-bed he has placed from three to five blankets; superimposed over these, a sheet wrung out of cold water, on which the patient, stripped, is placed, with legs outstretched, and arms to the side; the sheet is then drawn tightly around, up to the neck, and inclosing the feet; first one blanket, then another, and so on to the whole number,

are tightly drawn over the sheet, so as to have the *whole body well and closely packed*. In this state, the patient lies from a quarter of an hour to one or two hours, according to the object in view, and the effect produced. Some get tired at the end of half an hour, some can continue for one or two hours, and feel very comfortable. As soon as a gentle perspiration commences, a wineglassfull of water is given frequently. At the commencement of this treatment, in a case of fever, he has generally ordered its use for one hour; after that time the wet things are removed, and the sick person is placed in bed, well wrapped in three blankets, and allowed to perspire for three hours; afterwards the blankets are to be carefully removed, one at a time, so as to allow the perspiration to subside gradually, and the patient is then placed in bed, between the sheets.

During the whole of this period, small quantities of water should be given. In the summer, during this process, a free ventilation may be allowed in the chamber, in winter it is necessary to have a good fire, and to have one blanket well warmed, to apply around the body, so soon as removed from the wet sheet.

Several cases of incipient fever have lost all traces of disease after the first application. If the fever be not reduced, the next day the same plan must be repeated, keeping the patient in the wetted sheet from half an hour to one hour, according to the intensity of the symptoms, and in the blankets from one to two hours. This may be repeated every day till indications of *a cool* skin arise, then it must be immediately discontinued.

During some period of this treatment, the temperature of the atmosphere being very high, (75° to 78° in shade,) the author has not found it advisable to keep the patient as long as two hours sweating in the blankets; from an hour to one hour was sufficient. A longer period caused the pulse to be accelerated instead of lowered, which latter is the usual effect of the treatment. In very hot weather, when a free perspiration has been induced at the commencement of the fever, he has adopted the following plan. To wrap the sick person for half an hour in the wet sheet, covered lightly with one blanket; to be then washed all over with a towel wetted in tepid water, then rubbed dry, and placed in bed between the sheets. He has not found it necessary to make use of this treatment more than five times to the same individual; generally after the third or fourth application, the skin becomes cooler, and the other



signs of the fever gradually subside. When the skin becomes cool, and the tongue less dry, he has instantly discontinued all water remedies, and given bark, wine and broths, and it was surprising how soon convalescence and strength became established. During the whole course of the fever, milk and water, or weak broths, were allowed *ad libitum*. In one person, twice in the course of the same day, owing to the intensity of the fever, it was found necessary to repeat the wet sheet, using it the second time for only half the period of the first; a comfortable night ensued.

Without doubt, this is a most effective mode of *quickly* reducing the temperature of the body; an equilibrium is soon established between the cold of the water and the heat of the body, and the patient becomes bathed in a natural vapour-bath, as may be felt by placing the hand under the bedclothes. Where the fever runs high, and the delirium is violent, the wet sheet may be safely applied for short periods (two minutes,) several times in the course of the day. This will be found a more effectual mode of reducing the cerebral excitement than any other means with which we are acquainted. This refrigerating plan, used for ten minutes, during an evening exacerbation, will often produce a few hours' refreshing sleep.

The author confesses that he had, at first great doubts as to the *safety* of this treatment, where the mucous membranes of the bronchi and gastro-alimentary passages were complicated. Very soon his fears on this head were dissipated by the convincing evidence of experience; in fact, *these* proved the case in which the decided benefit of the treatment was most marked. The quick and embarrassed respiration, dry cough, and sonorous râles, subsided quickly after one or two applications of the wet sheet; the cough became looser, the râles moister, and expectoration was established.

The same happy change also occurred where the gastro-alimentary membranes were disordered. Generally, the first wet sheets puts a stop to the diarrhœa, and soon afterwards, pain and swelling disappeared. A confined state of the bowels was frequently the effect of the wet sheet, and it was found necessary, in several of the patients, to resort to small doses of castor oil. In three or four cases, the symptoms of gastric and abdominal irritation or inflammation were so violent as to have justified the employment of leeches in the usual treatment followed in the Parisian hospitals, and yet by the simple means mentioned, in three

days every bad symptom had vanished. A great saving is made to the patient's strength, when we can dispense with the abstraction of blood.

As the author is anxious to make this paper altogether practical, he does not enter into any theory respecting the *modus operandi* of the wet sheet.

The following selection of cases was read :

CASE I. Michael Kane, aged 18, Irish vagrant, of vigorous constitution. He has been in the Union Hospital five days, under the care of Mr. Stiff, and taken salines.

June 28th. The following is his present condition :—Supination in a lethargic state, and unconscious, unless violently aroused ; the face purplish red ; eyes bloodshot and pupil dilated ; constant picking at the bedclothes ; subsultus tendinum ; low muttering delirium ; the skin furnace-hot ; tongue dry, shrivelled, black, and covered with sor-des ; diarrhoea ; general tympanitis of abdomen, with much expression of pain when pressed, unless aroused, and then his face indicates the existence of pain ; the urine and stool are not passed involuntarily ; the abdomen and skin generally covered with dark-colored petechiæ ; the respiration hurried, forty-four in the minute, and the stethoscope reveals universal bronchitic râles in the chest ; pulse 130, weak and hurried. The treatment ordered was the application of the wetted sheet for one hour, blanket for two hours ; the head to be shaved, and a flannel night-cap, wetted with vinegar and water, to be constantly applied. To have milk and water *ad libitum*.

There evidently were clear signs of head, chest and abdomen complication. The bloodshot eye and purple countenance, accompanying a nearly unconscious state, indicated a congestive condition of the brain. The stethoscope revealed a similar condition in the lungs, and the universal swelling of the abdomen, attended by diarrhoea, and by pain when the patient was partly sensible, added no little to cause a most unfavorable prognosis to be formed.

June 29th. The aspect is better ; has passed a better night ; the picking at the bedclothes and the low muttering delirium are quite subsided ; the skin is cooler and rather inclined to moisture ; the purging no longer continues, and there is less tympanitis ; breathing and dry cough less troublesome ; respiration not so frequent when lying quiet but the slightest movement causes it to be accelerated ; the râles moister ; the man more intelligent when aroused, but still instantly falls into a doze when left to himself ; the



tongue not so black or dry ; the pulse come down to 100, regular and soft. He sweated much both in the sheet and blankets. To repeat the wet sheet and blankets as before.

30th. Continues better in all respects. No further application of the wet sheet.

July 1st. The man is convalescent ; skin cool and moist ; tongue has nearly lost all marks of dryness and blackness ; urine free and paler colored ; bowels open once daily ; intelligence nearly restored ; pulse 90 ; the chest and abdominal complications rapidly subsiding ; the patient asks for nourishing diet. To have the bark, mutton broth, and bread and milk.

July 4th. To have meat daily.

5th. Is able to walk in the room.

6th. Is down stairs in the yard, and well.

CASE II. Martin Glynn, Irish vagrant, aged 13, has been ill three days.

June 9th. There is intense heat of skin, and flushing of the face, with pains in the head, bones, abdomen, back, and legs ; great thirst ; tongue deep red and covered in the centre with a cream-colored fur ; great pain in epigastrium, and a tympanitic condition of the abdomen, with diarrhoea ; there exists slight cough, but no râles in the chest ; the tongue is tremulous and subsultus tendinum is present ; no sleep ; pulse 110, rather sharp ; urine scanty, and high colored.

To have the wet sheet for one hour, and blankets for three hours. Milk and water to drink. The abdominal complication was most marked in this case—a *true typhoid gastro-enterite*.

10th. Continues in many respects the same ; the diarrhoea, however, has subsided. Was ordered a repetition of the treatment, and the vinegar and water lotion to the head.

11th. Says he is better to-day ; the skin is cooler, and inclined to moisture ; face very little flushed ; tongue becoming less dry and red ; headache better ; no pain in epigastrium or abdomen ; bowels confined ; urine free and paler ; less thirst ; pulse 110, but not so sharp. To repeat the wet sheet as before.

12th. Convalescent ; slept the whole of the night, and makes no complaint this morning, except weakness. Face cool ; headache gone ; tongue clean and moist ; urine free ; pulse 64, very soft ; appetite returning. To have mutton broth and bread and milk.

13th. To have rice pudding and meat.

16th. Is able to walk in the yard, and may be considered well.

CASE III. Thomas Gafen, Irish, aged 14, of healthy habits, ill for three days.

July 8th. Face flushed and anxious; skin very dry and hot; tongue of a vivid red, and in the centre covered with a dirty cream-colored fur, becoming dry and black in places; great thirst; throbbing pain in the head, epigastrium and limbs; pulse 120, wiry, and small; considerable tenderness in epigastrium; gurgling in iliac region, accompanied with diarrhoea; the respiration hurried; frequent cough, and universal sonorous râles in the chest; no sleep, urine scanty. Was ordered the wetted sheet for one hour, the blankets for two hours. Hair to be cut short, and the wetted cap applied. Milk and water to drink.

9th. Continues in all respects the same, except that the skin is somewhat cooler.

10th. Wonderfully better; slept much in the night; aspect natural; no heat of face or skin, which is inclined to moisture; tongue moist, and losing its fur; very slight thirst; urine free; bowels open twice since the 10th, and has lost all pains in the head and epigastrium; pulse 76, soft. No further application was ordered.

On the 14th the boy was allowed to sit up, and have meat, and was considered convalescent.

In conclusion, the author inquires whether we may not draw the following conclusion from the facts brought forward:

1. That the judicious use of the wet sheet has a powerful influence in relieving many of the most distressing symptoms of fever.

2. That if applied *very early* in the disease, it may in some cases arrest its further progress.

3. That if used *later* in the disease it has a controlling influence, bringing the fever to a termination much earlier than by any other known treatment.

4. That the ordinary *complications* of fever are no arguments against, but rather for its use.

5. That with this treatment, weak broths and milk and water, *ad libitum*, may be allowed.

6. That the first symptoms of the subsidence of the fever, were a cool and often moist condition of the skin, a diminution of thirst, and an improvement of the tongue.—When these changes occur, the treatment must directly be discontinued, and the bark and better diet be ordered.



7. That some of the worst cases of typhus fever were convalescent, and walked about on the fifteenth day from the commencement of the attack.

[We may further observe that, at the Newton Branch Meeting of the Provincial Association, reported in the same number of the Journal, Mr. Burrows related the result of his experience of the above mode of treating fevers.]

He commences by clearing the *primæ viæ*. If the skin remained hot and dry, the mental faculties dull and cloudy, the limbs painful and weary, he ordered his patients to be stripped and enveloped in a sheet wrung out of cold water, and closely wrapped in thick blankets. This application was continued forty minutes, or more, according to the effect produced. During the interval warm diluents were freely administered, and when a copious perspiration ensued, the wrappings were removed, and the patient covered with the ordinary bedclothes. When the patient exhibited all the symptoms of "famine fever," viz: cold skin, feeble pulse, &c., he modified the treatment by wringing the sheet out of very hot water, and covering the patient as before, at the same time gave hot negus and acetate of ammonia. When sweating was induced it was maintained by placing a hot brick wrapped in flannel at the feet.—The patients invariably expressed themselves relieved by this treatment, and some continued to convalesce from that period; others had a marked crisis on the eleventh to the fourteenth day. Mr. Burrows states that he feels convinced that, applied during the initiatory stage of fever, the wet sheet, with purgative and diaphoretic medicines, has prevented the further development of febrile action, and removed the first impression made by the poison upon the system.—*Ibid.*

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3. *On the employment of Inhalation of Ether in some Forms of Ophthalmia.* By Dr. MACKENZIE, of Glasgow.

A recent number of the 'Annales d'Oculistique' contains a short communication from Dr. Mackenzie; and as we believe he has not published it in any English journal, we present an abstract, confirmatory as it is of the statements previously made upon the subject by MM. Cunier, Alex, and others. Having convinced himself of the power of ether in preventing the pain of operations, Dr. Mackenzie determined to examine its capability of assuaging some of the more painful affections of the eye, in which intense photophobia is a prominent symptom. "I therefore employed

it in a series of cases, both in my infirmary and my private practice, and with the most satisfactory results; I have prescribed it for scrofulous ophthalmia, corneitis, sympathetic ophthalmia, neuralgia of the branches of the 5th pair, and asthenopia; and have obtained some benefit from its use in all these diseases, but principally in the first three." Three cases are given in illustration. The first of these was an example of *scrofulous ophthalmia* of three months' duration, accompanied with great photophobia. Every variety of treatment had been tried, but the temporary amendment produced was always followed by relapse at no distant period. The immediate relief afforded to the photophobia by the ether was remarkable; the patient, who had shrunk from the least access of light, being enabled to open her eyes and guide herself from a room she had been accustomed to be led out of in darkness. The amelioration continued permanent, the photophobia not returning, although the inhalation was only resorted to twice, at an interval of some days. In a case of intense *corneitis* great pain and intolerance of light prevailed, and much opacity of the cornea existed. It was one of the severest cases Dr. Mackenzie had ever seen, and yet, prompt relief of the photophobia followed the use of the ether. This was resorted to several times, until tolerance of light had become quite established, and the transparency of the cornea somewhat restored. The third case was an example of the removal, by the same agency, of a disease which usually resists our ordinary means of cure, namely *sympathetic ophthalmia* of the one eye, succeeding to a wound of the other. In this instance, the pain and intolerance were intense, and the inflammation of the various textures of the eye had not yielded to mercurialization, when great and progressive relief was attained by the inhalation. It was employed at intervals of a few days during a month.—*Annales d'Oculistique*, tom. xviii, pp. 155-9. From *British and Foreign Medical Chir. Review*.

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4. *On the Use of Ocular Douches for the treatment of Purulent Ophthalmia of Infants, Opacities of the Cornea, &c.*  
By M. CHASSAIGNAC.

M. Chassaignac has for the last six months employed irrigation of the eye for the treatment of the ophthalmia of young infants with the greatest success; so that while formerly blindness at the Foundling Hospital was constantly occurring from this cause, it is now seldom so produced



there. The child is laid on a table, and water allowed to flow from a small tap through a tube over the surface of the eye during from 5 to 15 minutes several times a day. M. Chassaingnac has discovered that in this disease a pseudo-membrane is frequently produced, the removal of which much expedites the treatment. The mortality of children suffering from disease of the eyes during the last ten years was 1 in 3; while since this plan has been adopted, it has been but 1 in 8. In the course of investigation, this means was found applicable to several other inflammatory conditions of the eye, and also especially for the removal of opacities of the cornea which resist ordinary means. Accounts of its really remarkable success in this last important application, have just been published by one of the assistants at the hospital,—*L'Union Médicale*, No. 140. *Ibid.*

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5. *A case of Rupture of the Womb occurring during labor, and followed by recovery.* By Dr. PRASSART.

Cases of recovery after rupture of the womb are of such rare occurrence, that we are desirous of recording the leading features of this one, the subject of which had to contend alike with her formidable accident and the neglect of her attendant. A woman, æt. 37, of muscular make and very choleric temper, had been in labour for six or 8 hours, on 1st of February, when, at about 4 p. m., on getting on the bed she was seized with a tremendous pain, contemporaneously with which the waters were discharged, and a loud cracking sound was heard. She complained of terrible suffering at the umbilical region, and grasped this with both her hands. Labour-pain ceased, and she became ghastly and cold, so that her friends believed her in the act of dying, and had the religious sacraments administered. After a long period, however, they determined to call in advice, and about six hours after the accident the author saw her. He found her suffering from the extremest prostration and intense tenderness of the belly, through the parietes of which the parts of the child were plainly felt. He easily delivered her of the dead child by means of the forceps, a large discharge of blood following. He endeavoured to ascertain the size and position of the aperture, but could only discover that his hand at once passed into the cavity of the abdomen, whence he removed the placenta, and that large coils of intestine passed into the uterus, the great pain induced forcing him to desist. The woman, after this, seemed almost lifeless, and the author informed her friends that she could

not live the night. With true Germanic phlegm, he seems to have taken no pains to ascertain whether his prediction was verified, and in *four days* after was much surprised at being again called to visit the patient. He now found severe inflammatory action of the womb and abdomen set up, accompanied by great prostration of strength. We need not follow the case through its remaining details, presenting, as it does, but another example of the occasional wonderful power which Nature employs in coping with the direst extremities of disease. The author, from his unfrequent visits (alternate days) and the nugatory character of his treatment, may be considered as having delivered it over into her hands, the result being, that in four weeks the woman was enabled to leave her bed. She continued for some time after her recovery to be tormented with occasional severe pains; but in the course of the following year natural menstruation was re-established.—*Casper's Wochenschrift*, No. xli, 1847. *Ibid.*

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6. *On the Source and Influence of Malaria in the Southwest.* By Dr. A. G. LAWTON, of Marshall, Missouri.

It was the opinion of Labaraque, that the effluvia arising from decomposing animal matter had no deleterious influence on the human constitution; in support of which able proof is adduced. (*Journal of Foreign Medicine* for 1828, vol. ii., page 381, E. Littell, Phila.)

This also was the opinion of Bancroft, and some others. Whatever combination of circumstances might be necessary to produce this poison, one thing is certain, that is, that water is one of the elements always necessary to its production; and that the water must be in small quantities, is evident from the fact, that the earth sends forth this effluvia in the greatest abundance in the last stage of its drying. I do not believe that decomposing animal matter will always necessarily produce it, for it requires a union of elements brought together under certain circumstances, implying a certain degree of heat, moisture, and matter, aided by a slow grade of decomposition, in order to the perfect development of this deleterious effluvia; hence Labaraque was right when he said as above quoted, he having reference to the *rapid* decomposition of dead bodies, for here we do not have the manner of decay, or the circumstances combined which are necessary to produce it.

What I conceive to be the most prolific source of malaria is, animal matter in minute fragments, mingled with vegetable matter in a process of *slow* decay. Where wash-water



is being constantly thrown out, around houses, in by and shady places, amongst rubbish, where old bones and vegetable matter are left to rot by slow degrees, it cannot fail, after a long time, to give rise to, or produce a pestilential effluvia, especially in very dry seasons ; for it is generally the case that wash-water contains more or less animal matter, and that, too, of a kind favorable for the generation of miasmatic exhalations.

It will be found generally the case, that the sickly season does not commence until the thermometer falls a little from its extreme point, and the sky assumes that peculiar veiled appearance that it has in the latter part of the summer, and the autumnal months, or in very dry times. The fore part of the season is the healthiest part of the year, for the heavy rains and storms of the spring have swept all noxious matter from the air, and left it rightly and equally tempered. It generally happens, that as the drought increases the dews lessen, until the healthful moisture of the air is gone. Now, at this time, the intensity of the sun's rays is on the wane, for this occurs in the latter part of summer and fall, and the hottest days of the year are in the last of June and the fore part of July, and the most sickly time is in September, and sometimes in October.

When the dews begin to lessen a little, the sky assumes a dark or red appearance, and the sun's rays are a little blunted, as though its rays were in some way obstructed ; until now, the evaporation from the earth's surface is not very poisonous, but now the evaporation from all the high lands, and drier part of the country, is very trifling, and daily lessen ; and now the drought increases. At this time the water is mostly gone from the earth's surface ; the ground parched by drought ; the atmosphere already deprived of all healthy sources, whereby it might be supplied with moisture, at the very time when there is the greatest necessity for it ; and this lack of humidity in the air must be supplied from some source, and this vacancy is soon filled up by an increased and rapid evaporation, from the half-dried swamps, stagnant pools, sinks, gutters, sewers, and from the banks and bottoms of streams, where the water has fallen and left the mud exposed ; from these sources the moisture of the air is still maintained, and the atmosphere is still humid.

But now the equilibrium of the air is partially destroyed, it being over-dry in some places, and excessively humid in others ; for this humidity is not like that humidity which

comes from clouds and storms of rain, which in itself is harmless, but it is a humidity formed of noxious vapors, constantly springing from decomposing matter; which, being either chemically united or mechanically mixed with some elementary principle evolved from decomposing matter, is thereby rendered much heavier than humidity from other sources, and becomes incapable of rising very high in the air, unless it is forced up by some fixed current of wind; and thus it happens that, under these circumstances, the atmosphere becomes unequally tempered. And now the moisture of the earth is so far exhausted on all the uplands, that it cannot afford much material for evaporation, and this process is of necessity limited to a small surface, that is, from swamps, marshes, ponds, streams, etc., from which places evaporation is very much increased, and the vapors rise in denser volumes, bringing up the poisonous exhalations from these places, where vegetation, flies and reptiles, have fallen and rotted for ages; where the matter, after being long steeped, is every year dried down, in the latter part of which process there is formed, and evolved from this mass, by the action or re-action of decomposing elements on themselves, a something which we call *malaria*, long known by its effect, being followed by a certain train of diseases peculiar to themselves, and known to be produced by no other morbid effect.

Now, under these circumstances, should the wind be low, which is generally the case, sometimes a dead calm prevails, or the wind sets lightly from an eastern direction, blowing with a current just strong enough to move the poisonous vapor from its resting place, and spread it over the country; and should this state of things exist long, and progress to an intense degree, a sickly time must inevitably follow; and when this state of things does progress to an intense degree, it is generally brought to bear most severely on the community in the autumnal months, increasing as the cold season approaches, or until some violent storm or frost occurs; when the reverse of this happens, the sickness of the season is very much modified, assuming less of an epidemic character.

I am convinced, from experiments and observations, that wood is capable of generating an immense amount of this poison; decomposition of the ligneous fibre is slow, and where it is long exposed to wet and dry, as in marshes, pools, and about houses, for many years, I believe it will produce a pestilential effluvia. If pools of water, standing



in the blue clay on these prairies, have nothing of the wood kind in them, the weather being very dry and hot, so the water does not move in or out of these pools, in two or three months the water becomes perfectly sweet and clear, and if it is not agitated from the bottom, it may be drunk or used with impunity; but if these pools contain logs, chips, brush, leaves, or wood of any kind, that is, old and in a decaying state, then the water never becomes either sweet or clear, but assumes a dark color, and the drier the weather, the blacker it gets, when it becomes an active and certain poison, producing on the human constitution sudden and alarming effects, accompanied with excessive vomiting and purging, extreme prostration, and death. And how much sickness there is produced by drinking water impregnated with this poison, is difficult to say, as water holds it in solution in every degree, from the minutest quantity, which would require years to affect the constitution, up to a degree of concentration sufficient to destroy life in a few hours.

The Indians suffer less from these causes than the whites, and the reason is obvious; they seldom live long in a place, constantly moving from one place to another, and often burn their tents, and erect new ones, and a fire is kept constantly burning in the centre of the tent, around which they sleep; they do not live long enough in a place for the accumulation of filth to become an effectual source of disease.

Although these countries, as a general thing, are not subject to extreme atmospheric vicissitudes, yet it sometimes happens that we have inflammatory diseases in the cold half of the year, as inflammation of the lungs, pleura, and the like; and although they occur at a season of the year when the air is free from all noxious exhalations, yet they generally assume that grade and type which is common to malarial fevers, and they generally fall most intensely on those living nearest the focus of miasmatic emanations; hence I count them as malarial; and taking this view of the subject, I have long since concluded to bleed less and give quinine more, and with this treatment I have been much more fortunate than when I used the lancet.

But antimony is our main reliance in these cases. Tart. antimony, judiciously administered, will seldom disappoint the physician's expectations. As soon as the pulse falls, and the expectoration becomes a little modified, I add quinine to the antimonial powders; and when the antimony is no longer indicated, I continue the quinine, combined with

ipécac., and sometimes Dover's powder. (My Dover's powder is made with the nitrate of potassa in place of the sulphate.)

I have only one thing more to add at this time, and that is, with respect to the use of quinine, combined as described in my former paper. (N. Y. Jour. of Med. vol. 8, p. 69.) Make a powder of quinine, camphor and pulvis Doveri, then the powder will contain quinine, nitre, opium, ipécac., and camphor; now, if you increase the ipécacuanha a little, you will have a better powder for winter fevers, for ipécac. increases the effect of quinine very much, especially in fevers that verge towards the continued type. I look upon opium and camphor as important additions to quinine, unless contra-indicated, and we seldom meet with a case where nitre is not admissible. In treating fevers, there are many indications to be fulfilled, some of which quinine alone would not effectually meet. Quinine sometimes operates too locally, and the addition of camphor gives it a more general searching effect; and if the effect should not be increased, I believe it is more effectual by being more particularly directed to certain indications to be fulfilled, which is just what we should be led to expect from *a priori* reasoning; and in addition to all this, it sometimes becomes necessary to add a more potent and diffusible stimulant, as brandy.—*N. Y. Med. and Surg. Journal.*

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7. *On the Antagonism between Typhoid Fevers, Intermittents, and Phthisis.* By M. BOUDIN.

The following summary of M. Boudin's conclusions on this subject are given in a recent number of the *British and Foreign Review*. The facts are simple, and the sources from whence they are obtained sufficiently accurate to justify a reliance on the statements.

1. Those localities in which the producing cause of endemic intermittents thoroughly modify the constitution of man, are remarkable for the infrequency of pulmonary phthisis and typhoid fever. 2. The localities in which pulmonary phthisis and typhoid fever are particularly prevalent, are remarkable for the infrequency and mildness of intermittent fevers contracted on the spot. 3. The drying up of a marsh, or its conversion into a lake, diminishes or prevents intermittent fevers, but seems to dispose the organism to a new series of diseases, in which pulmonary phthisis and (according to the climate) typhoid fever are particularly prominent. 4. After a residence in a thoroughly marshy



locality, an individual enjoys an immunity from typhoid fever, the degree and duration of which is in direct proportion, first, to the length of the previous residence; second, to the intensity of the fevers proper to the locality, considered under the two-fold relations of form and type; third, or, in other words, that a residence in a country of remittent and continued fevers, such as certain points of the coast of Algeria, and the centre of the marshy part of Brasse, is more prophylactic against the disease referred to, than, for example, a residence near the marshy embouchure of the Bievre, at Paris. 5. The conditions of latitude and longitude, and of height (above the sea) which limit the manifestation of marsh fevers, equally limit the curative or prophylactic influence of the marsh miasm. 6. Lastly, certain conditions of race, and possibly of sex, diminish the susceptibility of the system to the cause of marsh fevers, and in equal degree diminish the therapeutic influence of that cause.

The subject of which M. Boudin treats has considerable practical value in the distribution of troops, and in the hygiene of those predisposed to consumption.—*Lancet. From ibid.*

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8. *On the frequent occurrence of Alkaline Urine in Health, and the Errors of Diagnosis, occasioned by a want of knowledge of this fact.* By Dr. KRUKENBERG.

The fact, first promulgated by Wohler, that the internal use of salts of vegetable acids and fruits containing them, causes the urine to be secreted alkaline, has been too much neglected by succeeding physiologists and pathologists. Our author found that a much smaller quantity of fruit was necessary for the production of this phenomenon than has hitherto been supposed, viz.: 2 to 4 oz. of apple pulp, or 12 plums, weighing without the stones scarcely 1½ oz., sufficed to make the urine alkaline and hazy from phosphates, or if clear on excretion, heat caused their deposition; the addition of a little hydrochloric acid caused an efferverscence like champagne; too much liquid, a bladder already filled with acid urine, or a disproportionate allowance of flesh, interfered with the success of the experiment. How often are those ill of chronic complaints who use a moderate diet, and with whom fruit is a useful and favorite article, troubled with hazy and alkaline urine, causing anxiety alike to themselves and their physician, which a little physiology does away with. In the simple chronic nephritis of Rayer, the chief symptom is the alkalinity of the urine; in no case

was there a *sectio cadaveris*; and some of the cases recovered so quickly, as to justify a doubt as to the correctness of the diagnosis; although he inculcates careful dietetic treatment, it is evident from his work that the semiotic influence of fruit in small quantities was unknown to him. This article is not forbidden at La Charité, and friends of the patients often carry them some. In several of his cases the alkalinity of the urine seemed to depend on purulent admixture, and consequent rapid putrefaction; and in one it seemed to be kept up, if not produced, by the use of an alkaline saline water (Contrexeville). The alkalinity of the urine has also been used by Prout as a diagnostic sign of certain spinal affections. These he divides into two great classes:—1st. Those arising from depressing emotions and weakening influences; and in these he recommends the use of fruit, and fluids containing malic acid, as cider and perry; to these, and not to any disease, our author refers the alkalinity of the urine. 2d. Injuries of the spine; our author states, that neither Rayer nor himself had ever been able to observe the urine alkaline in cases of injuries of the spine, unless there were some existing or consecutive affection of the mucous membrane of the urinary passages, producing purulent admixture, hastening thereby the putrefactive changes in the urine. In the three cases detailed by Prout, two had stricture of the urethra, and the third retraction of the testicle, and a mucous sediment—all bespeaking the existence of some such affection. A microscopical examination, by showing the existence or absence of pus-cells in the urine, would have confirmed the diagnosis, or at once corrected it. How far inattention to diet may have led to error, cannot be specified. Prout also mentions, without explanation, what has already been referred to, viz.: That although alkaline urine, by copious secretion, be clear and bright, yet boiling causes it to deposite a phosphatic sediment, which falls without any such previous process, if the secretion be more sparing; the phosphates separate before the boiling point, and from their great specific gravity fall rapidly, and may thereby, as well as by their solubility in acids, be distinguished from the albumen found in Bright's disease.—*Month. Jour.*, Aug. 1847. *From ibid.*

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9. *Cause of Mortality in Still-born Children.* (Ranking's Report in Abstract, January to July.)—The causes of deaths in still-births, with the means of preserving the infant's life, have been made the subject of an ingenious brochure by



Dr. Richard King, in which the author endeavors to show that the mortality arises from syncope, and not from asphyxia, as is commonly thought to be the case; and that the great danger to be dreaded in tedious or abnormal labors is not the compression of the cord so much talked of by accoucheurs, but its non-compression; so that the foetal blood, as the placenta becomes detached, is, as it were, sucked up by that body, and the child is in fact thus, to all intents and purposes, rendered ex-sanguine. The treatment which the author suggests, as indicated by this theory, is the compression of the cord under certain circumstances, so as to prevent the possibility of that congestion of the placenta which he regards as the active cause of the death of the still-born infant. The arguments upon which the author founds his opinions are selected with judgment, and the work is altogether worthy of the best attention of the obstetrical practitioner.—*Ibid.*

10. *Abortion, and Menstruation during Pregnancy.*—[Mr. Whitehead, in a recent work on the Physiological and Morbid Conditions of the Uterus and their relations to the Treatment of Abortion and Sterility, when treating of Abortion, lays down the three following positions from the cases narrated:]

1. That what is commonly called ulceration of the cervix uteri may be the predisposing, as well as the immediately exciting cause of abortion.

2. That the purulent product of uterine ulceration, under some forms, at least, possesses virulent properties, capable of producing disease in another individual, or in another part of the same individual by inoculation; and probably capable also, by being absorbed into the circulation of the same person, of materially disordering the fluids, and of creating thereby a peculiar susceptibility to disease.

3. That the application of caustic to the uterus, and the employment of other active measures which I have heard practitioners object to during pregnancy, as likely to endanger the well-being of the offspring, may not only be safely administered, but that they constitute in fact one of the principal means of securing both mother and child from danger.

[In relation to menstruation during pregnancy, the following are his conclusions:]

1. That menstruation during pregnancy is, for the most part, perhaps always, associated with an abnormal condi-

tion, generally with ulcerative disease of the uterus, requiring at all times active remedial treatment.

2. That hemorrhage during pregnancy is not necessarily associated with an altered relation of the parts within the uterus, and, by timely care, need not interfere with the integrity of the ovum.

3. That menstruation, during the early periods of lactation, is not always natural menstruation, but that it is generally associated with morbid conditions which are amply adequate to the satisfactory explanation of the phenomenon; that secondary hemorrhage is, in the majority of instances, not owing to imperfect contraction, or atony of the uterine fibres; and that the discharge very probably proceeds, under these circumstances, not from the inner surface of the uterus, but from the diseased surfaces, situated upon parts external to the cavity of the organ.—*Ibid.*

11. *The case of Mr. Whitman.* (From the Portland Argus.)

The case of the late lamented Rev. Jason Whitman, who died in this city, of pleurisy, has excited more than usual interest. It was known to his friends that from early infancy he had suffered from a peculiar cough, and copious muco-purulent expectoration. He seemed predisposed to pleurisy, from which he had suffered several attacks.

The peculiar symptoms of his case, led him to suspect there might be some malformation, which must preclude the hope of perfect health; and he expressed the wish, that, at his decease, a post-mortem examination might be made. It is believed that a short description of this wonderful case may be interesting to your readers.

The examination was made by myself, in the presence of Drs. S. Weed, A. Rea, Wm. Wood, J. T. Gilman, J. T. G. Daveis, M. Dodge, and L. Fitch; and Wm. Willis and Martin Gore, Esqs.

When the lungs were exposed, they were observed to be united by old firm adhesions, laterally to the pleura covering the ribs—and below to the diaphragm. These adhesions gave proof of previous attacks of inflammation. At the inferior part of the left lung was a deposit of pus—the result of the last attack of disease. This was contained in a small sac formed by the pleura of the lungs on the one side, and of the ribs on the other side, and the only part in both lungs not previously bound to contiguous parts by strong adhesions.



The two lobes of the left lung filled the left cavity of the thorax. The heart was in the right cavity, having its apex or small end inclined to the right, and not towards the left side, as in the natural position. The right lung has three lobes; in this case there were only two; the place of the third being occupied by the heart.

The liver was in the left side, of nearly natural size, and perfectly reversed from—united to the left, and not to the right hypochondrium. The position of the stomach was reversed, the small end to the left, and the large end towards the right side. The spleen and larger end of the stomach occupied the place usually assigned to the liver. The large intestines, always found on the right, were here situated in the left side of the abdomen, and passing from left to right, instead of their natural reversed direction, from right to left. The sigmoid flexure, always in the left, was in this case found in the right side. All organs of the abdomen were healthy, and their form perfect, but reversed. The great omentum, or caul, was wanting. The other organs examined were natural in form and situation.

It was matter of regret that time did not allow us to pursue the examination of the arteries, as peculiarities in his pulse had been observed during life, which might perhaps have found a solution. So strange a natural position of so many important organs was never before seen by any of the physicians who witnessed the examination.

Yours, E. CLARK.

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12. *The Bite of the Rattlesnake.* By CHAS. A. PHELPS, M. D. (Communicated for the Boston Medical and Surgical Journal.)

The fate of the late lamented Dr. Wainwright, of New York, gives at this time a sad interest to inquiries on this subject. In the account of his case published in the newspapers, the full details of his treatment are not given. There is one remedy, however, which appears deserving of further trial. I refer to olive oil.

In the Philosophical Transactions of the Royal Society of London, for the year 1734, mention is made of a viper catcher, who having been frequently bitten, had always cured himself with sweet olive oil. He was induced to make trial of its effects at a meeting of the Royal Society. Stripping his arm, he compelled the enraged animal to strike him forcibly. The poison was allowed to act upon his system until his head, face and tongue were greatly

swollen, his face and arm quite black, and his senses much affected. Oil was then given internally, and the wound freely bathed with the same, after which he gradually but soon recovered. In the same volume an account is furnished of some experiments made subsequently at Oxford, in which a viper could not be made to bite a part of the hand which had been smeared with oil, although it did so readily after the oil was removed. These undoubtedly were the common English vipers—the *coluber berus* of Linnæus.

In Vol. II., No. 2, of the Medical Repository, published in New York in 1798, an article is found narrating its use in South Carolina in 1786, in the case of a woman bitten by the deadly rattle-snake of our country (the *crotalus* of Linnæus.) In this instance the head and face were greatly swollen, the tongue swollen and protruded, the face black, the senses affected, and extreme difficulty in respiration. Two drachms of olive oil were administered internally, followed by an immediate abatement of the symptoms, and in thirty minutes by emesis and dejections. After this she became rapidly convalescent, and soon wholly recovered.

To come nearer home, I would mention a case related to me several years since by Dr. A. Phelps, of this city. It was that of a man who had some fifty rattlesnakes which he exhibited. Imprudently exposing himself on one occasion, he was severely bitten in the hand. The usual symptoms immediately manifested themselves. Olive oil was given internally, and the hand and wrist immersed in the same for twelve hours. In a short time after the oil was exhibited, the symptoms subsided, and the following day the man was as well as usual.

This remedy was used successfully at Dresden by Dr. Vater. Also in England by Mr. Oliver (for the history of his experiments, see Philosophical Transactions, Volume XXXIX). It is said to have been used ineffectually at Paris by Messrs. Geoffroy and Hunauld, of the Royal Academy. Combined with ammonia it was highly recommended by the celebrated Bernard de Jussieu. Dr. Mead tells us that the viper catchers in England used, as a specific upon which they placed the greatest reliance, the *axungia*! of the viper rubbed into the wound. The ointment of M. Gondret was prepared with oil of olives,  $\frac{3}{4}$  ss.; tallow,  $\frac{3}{4}$  ss.; ammonia,  $\frac{3}{4}$  j. Orfila, in his work on Poisons, recommends the application of heated olive oil to the wound. The famous *eau de luce*, which was attended with success



in the hands of de Jussieu and M. Sonnini, the latter of whom, in his Travels in Greece and Turkey, details an interesting case of a child cured by its use, is well known to have been composed of oleum succini in union with a volatile alkali. Is it not probable that these remedies acted in a similar manner to olive oil itself?

It is not necessary to speak here of the various other remedies advised in the treatment of these venomous bites. It is to be regretted that opinions on this subject are so unsettled, and that more satisfactory results have not been always reached. I would ask, however, if the foregoing does not warrant a further use of olive oil. Whether any resort was had to it in the case of Dr. W. before alluded to, I am not informed. Boston, January 14, 1848.—*Boston Med. and Surgical Journal*.

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13. *Nitrate of Silver in Membranous Croup.* To the Editor of the Boston Medical and Surgical Journal.

Dear Sir,—The reading of the case of membranous croup, treated with nitrate of silver, reported by Dr. C. E. Ware in your Journal, No. 21. vol. 37, has induced me to send you the following case, which came under my observation, for insertion in the Journal, if you think best.

On the 23d of November last, I was requested to visit H. P., aged about 15 years, laboring, as her parents supposed, under a severe and protracted cold. Her disease, in fact, was *cynanche trachealis*, evidently, in my mind, to prove fatal soon, unless something could be done to remove the *false membrane* which had been formed, nobody knows how long. It was a case characteristic of croup in its last stages; face flushed and swollen; eyes protuberant; breathing was performed with a frightful hissing noise; pulse 110 in a minute. Gave her an emetic immediately, which gave temporary relief. Ordered onion poultice to the neck, and prescribed such other medicines as in my judgment were called for. This was in the evening. Visited her the next morning. As I anticipated, I found her no better. Could hear her breathe, although in an adjoining room with closed doors. Realizing sensibly, that her case would prove fatal, unless some more efficient means could be devised, I resolved, as a *dernier resort*, to make use of a strong solution of nitrate of silver. It was accordingly prepared, and a spongy substance, well saturated with it, was introduced low down into the trachea. The breathing presently grew worse; but within an hour looseness seemed to take place,

which promised relief. Considerable slimy, ropy matter was got rid of, which, as the saying is, seemed to come from the "right spot," and within an hour and a half from the time the solution was made use of, a piece of false membrane was thrown off, an inch long, hollow, tube-like. The effect was immediate relief. Her breathing, which was distressingly performed but a short time previously, was now nearly natural, and she could talk distinctly, which she had not done for many days before.

So much for the nitrate of silver in this case. What it will do in all similar cases, I cannot say. At any rate, if one presents itself, which I sincerely pray never will, I shall most assuredly give it a fair trial. In conclusion, I would say, that I have not the least doubt that it saved the life of the patient above referred to.

L. ALDRICH.

Reading, Vt., Feb. 1848.—*Ibid.*

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14. *Second Advent of Thomsonism.*—That nothing may be wanting, in the metropolis of New England, to meet all the whims and caprices of all classes of society, the whole Botanico-Medical College of Ohio (supposed to be Thomsonian)—that is, its faculty, which embraces the lion of the party, the chancellor of the University himself—have been transferred to Bromfield street, Boston, within a stone's throw of the Medical Journal office. Five lectures are to be given daily. What is to become of that monster of a Cayenne College at Worcester, Mass., which was to swallow up all the venerated institutions of medicine in Massachusetts?—It is evident that the two will soon be at loggerheads, since the Worcester gentlemen, who predicted the infliction of a Thomsonian governor over the Commonwealth, in 1849, in case a charter was refused them, will logically demonstrate that these Buck-eye botanics are trenching on their own hallowed ground. For ourselves, not the least fear is entertained of the efforts of these loud-talking strangers. It was benevolent in them to commence operations in Boston, the focus of Thomsonian ignoramuses. If it is possible to enlighten the latter, the attempt should be made, as they actually disgrace their calling. It is generally supposed that all who practise, as these New England one-idea lobelia people do, are equally stupid; and if measures are in progress for letting light in upon their No. 6 minds, all well wishers to humanity will hail the intelligence with delight. After hearing some of the lecturers from Ohio, a further



notice may be given of their character and tendency.—*Boston Medical and Surgical Journal*.

15. *Surgical Co-apter and Splints*.—A medical student, Mr. Oliver D. Wilson, of West Boylston, Mass., has invented and secured a patent for reducing dislocations, which he calls the Co-apter, accompanied by a variety of curiously constructed splints, made of iron. He has certainly hit upon something that merits attention. He appears to have been led to the invention in consequence of the high cost of other kinds of surgical adjusters. The new instrument seems to accomplish the same result that is attained by other approved ones, and by a simplicity of mechanism that leads one to wonder that the principle on which it and others operate, was not discovered long ago. Without attempting a description, which we could not easily give, it may be proper to observe that the inventor proposes to publish an account of the peculiar properties of each article, accompanied by drawings, when the subject may again be called up by ourselves.—*Ibid*.

#### ANNUAL MEETING.

The Wisconsin Territorial Medical Society convened at the Capitol, on Tuesday, the 25th of January, A. D. 1848.

On motion of Dr. E. A. Mulford, from Walworth, adjourned to Wednesday, the 27th of February.

Pursuant to adjournment the Society met.

On motion of Dr. H. Clark, from Walworth, Dr. Mason C. Darling was appointed President, *pro tem*.

On motion of Dr. C. B. Chapman, of Madison, Dr. Eliab M. Joslin, from Lake Mills, was elected a permanent member of this society.

On motion of Dr. H. Clark, Dr. F. G. Newell, from Racine, was elected a permanent member of this society.

Dr. John Bristol, of Portage, and Dr. Jesse Moore, of Rock, were by vote excused from attendance, they having rendered a satisfactory excuse for their absence.

The society proceeded to the election of officers for the ensuing year. Whereupon

Dr. John B. Dousman, of Milwaukee, was chosen President, and Dr. L. B. Brainard, of Sheboygan, Vice President.

Dr. C. B. Chapman, of Madison, Recording Secretary,  
Dr. B. B. Cary, of Racine, Treasurer.

Drs. E. B. Wolcott and L. S. Hewett of Milwaukee, and Dr. O. N. Blanchard, of Racine, Censors.

Dr. Jesse Moore, of Rock, Corresponding Secretary.

On motion of Dr. Clark, voted that five delegates be elected to attend the meeting of the American Medical Association at Baltimore in May next.

The following gentlemen were chosen such delegates, viz: Dr. Mason C. Darling, of Fond du lac; Dr. Jesse Moore, of Rock; Dr. E. B. Wolcott, of Milwaukee; Dr. Henry Clark, of Walworth, and Dr. B. B. Cary, of Racine.

On motion of Dr. Newell, the following was also adopted.

Whereas, pure and unadulterated articles of medicine are all-important to the life, health and safety of the people of the United States; and whereas, impure and adulterated articles of medicine are constantly being imposed upon us, therefore

Resolved, That the Territorial Medical Society of Wisconsin, respond to the call of the New York College of Pharmacy in its organized capacity, in memorializing Congress that a law may be enacted that all imported articles intended for medical purposes, which may appear at the custom houses of the United States, shall be subject to inspection and analysis by two or more competent chemists, and if found to be impure and adulterated, to be confiscated and destroyed.

That the President be requested to deliver an address before the Wisconsin Territorial Medical Society at its next annual meeting.

On motion of Dr. Clark, the society then adjourned.

MASON C. DARLING, *Pres't. pro tem.*

C. B. CHAPMAN, *Secretary.*

—*Madison Argus.*

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17. *Abdominal Tumor mistaken for Pregnancy.* By JOHN CHALLICE, Esq. (*Lancet*, Oct. 16, 1847.)

[The following case is one of great practical value, and displays forcibly the great difficulty which surrounds the diagnosis of pregnancy. It would, perhaps, be difficult to meet with an instance affording stronger circumstantial evidence of that condition.]

Mr. Challice received an urgent message to visit a young lady, said to be laboring under cholera, but from hints received from the maid-servant he was induced to suspect the possibility of pregnancy.

When he arrived he saw a young female in bed, lying



on her right side, with her face buried in the pillow, and the knees drawn up towards the abdomen. She seemed to be in pain, but was sullen, and refused to answer any questions. The mother stated that she had been vomiting, and complaining of pains in the loins, with a constant desire to pass water, and that for the last five or six months she had observed a change in her daughter—the appetite capricious, temper irritable, and on several occasions she had been surprised in tears; notwithstanding, she denied being ill, and continued to perform her domestic duties. These facts seemed confirmatory of the servant's suspicions, and with almost a conviction in his mind of the condition of the girl, the author placed his hand upon the abdomen; it was tense and swollen, and a movement like that of a living foetus was distinctly felt; he then listened and detected a loud and quick pulsation.

The presence of these symptoms induced him to pronounce the patient pregnant. No suspicion had entered the mother's mind; she was an only daughter, and bore an excellent character. However, she did not deny the fact, but after a distressing burst of grief, and a pitiable appeal for forgiveness, she confessed that her cousin had had connection with her once, and only once, about six months before, a few days previous to his departure from England. Being unwilling to aggravate her sufferings by what appeared unnecessary enquiries, or disturb the patient by further and more careful examination, considering the case quite decisive, Mr. Challice contented himself with prescribing some simple remedy for relieving the sickness and pain. The next day there was a great improvement in the condition of the patient; the fear of discovery no longer agitated her, and she had been forgiven. Up to this period she had so contrived to compress her figure, that no increase in her bulk was perceptible when dressed, although her size was quite that of the six month of gestation when undressed. Now that this cruel mental and physical restraint no longer tormented her, she suffered less from pain and sickness, became less sullen, and more communicative.

It appears that the connection took place, after prolonged resistance, just previous to the usual period of menstruation; that up to that time there had never been the least irregularity of this function during the three years she had menstruated.

She was greatly alarmed at the absence of the accustomed appearances at the usual time, and did not feel well

in health, although she had no marked symptoms; a general sense of uneasiness, with pains in the loins, and an occasional slight feeling of sickness and loss of appetite were felt. When the next period came round, she was pleased at finding herself "unwell," but only to about half the usual extent; menstruation had continued regularly up to the time Mr. Challice saw her; on each occasion, however, more and more scantily. The abdomen had gone on gradually increasing in bulk, and about five months after the connection the patient was conscious of a movement and pulsation in the abdomen, and believed herself pregnant. The breasts were small, and marked with an indistinct areola; around the eyes and mouth there were dark circles, and her mother said she had fallen away in flesh. Previous to this unfortunate occurrence, the patient not only enjoyed good health, but was remarkable for strength, endurance, and activity, inclined to *embonpoint*, full of life and spirits, and in her nineteenth year.

During the next month or six weeks Mr. Challice saw the patient occasionally. She complained of no urgent symptom, walked out now and then, had a good appetite and digestion, with sometimes slight irritability of the bladder, and irregularity of the bowels. The gradual increase in size still went on, and the mother (who now slept with the daughter) said that the movement of the child continued. The patient complained of its violence when in bed, and began to suffer from lumbar pains and constant irritation of the labia, which was much increased when she drank beer, wine, or spirits. And so the case went on.

When the ninth calendar month had nearly expired since the connection, Mr. Challice became much interested in the case, thinking it one in which the period of gestation could be accurately ascertained.

On the evening of the expiration of the ninth month the author received the expected message, with an urgent request to hasten, as very strong labor had come on. When he arrived the patient was standing at the foot of the bed, grasping the bedpost, and evidently suffering from pain, although not of a violent character. There was an interval of about ten minutes in the pains, during which she walked about the room, having a very anxious and haggard look.

After a good deal of persuasion she consented to an examination *per vaginam*, which seemed to cause excessive pain, as she screamed violently, and exclaimed that she



was being murdered. At the time, the author thought the patient hysterical, but was much surprised at the narrow constricted condition of the vagina, and the presence of the hymen nearly perfect; the agony, however, produced by the examination, seemed so intolerable, that the patient, by a sudden and violent effort, threw herself from him, declaring that he should torment her no more.

Finding that the pains were weak and ineffectual, and at longer intervals, and feeling assured, from the condition of the parts, that immediate labor was not at hand, the author gave twenty minims of opium, and left, directing a full dose of castor oil to be given in a few hours. During the night she slept well; the oil acted freely in the morning; and the next day passed over without pain or any inconvenience, the patient having a good appetite, and being better in spirits. About eleven o'clock at night the pains returned with increased violence, and he found her straining and bearing down at the bedpost. An old experienced nurse declared "that the pains were quite strong enough, with *assistance*, to bring the child into the world." The mother states, that during the night she had placed her hand on her daughter's stomach, and felt the child move vigorously.

In the intervals of pain the patient walked about the room, and was cheerful, except expressing what seemed to be an unreasonable horror at any examination. The pains commenced in the abdomen, and then extended round to the loins, came on regularly every ten minutes, and were marked with all the characteristics of labor in first stage.

The extreme excitement and dread which the patient evinced when the necessity for an examination was impressed upon her induced the author to waive it, although he was anxious to ascertain the real condition of affairs. It would be useless to detail the diurnal symptoms; suffice it that a week passed over, and matters remained apparently without alteration either one way or the other. I may here state that menstruation did not take place at this period. Doubts now began to rise in the author's mind about the nature of the case; and, when nine calendar months from the departure of her cousin had expired he became very anxious about it. It was at this stage that Dr. Lever was consulted. After a careful and thorough external and internal examination, this gentleman, justly famous for his skill and tact in diagnosis, having the history of the case before him, came to the conclusion that it was

"extra-uterine impregnation." At that time her physical condition was as follows:—Countenance pale, an anxious expression; eyes rather sunken; nose pinched; breasts somewhat flaccid; abdomen the size of mature pregnancy, if not larger; bowels sometimes costive for a day or two, at others times the reverse; urine most frequently pale and copious, but on some occasions thick, scanty, and high-colored. Over the entire abdominal region a distinct pulsation could be heard and felt; but owing to the extreme excitability of the patient it was almost impossible to ascertain whether or not it was cynchronous with the pulse. Palliative measures were adopted, and the case, now become one of painful interest, was closely watched. During the next fortnight no perceptible alteration occurred, except that the pulsation in the tumor became less distinct, and the abdomen more tense. Dr. Ferguson now visited the patient, and pronounced the abdominal pulsation to be synchronous with the heart's action, and doubted whether impregnation had taken place at all. On his recommendation the author punctured the abdomen with a fine "trochar," and drew off about five pints of thick grumous and offensive matter. Great relief followed the operation, only, however, temporary; for in the course of a short time the abdomen became as tense as before, and all the patient's sufferings returned. The interest, in a further detail of the symptoms of this case, here ceases, no doubt now being entertained of its character. After a second and third tapping, the poor girl gradually got weaker and weaker, her only comfort the oblivion produced by anodynes; and on the 15th of February she died.

The day following assisted by Mr. Druitt, a post-mortem examination was made. The upper portion of the body was extremely emaciated, but owing to slight oedema of the lower extremities, this appearance was not general. Abdomen greatly distended, and marked by enlarged veins; it measured in circumference fifty-eight inches. About a gallon of fluid was drawn off by the trochar, previous to making a free incision, after which nearly a pailful of brain-like matter rolled out. This had been contained in a cyst, which extended from the pubis to the ensiform cartilage, and from the left to the right hypochondrium; in some parts the walls of the sac were more than an inch thick, and of a fibro-cartilaginous consistence; the anterior portion adhered firmly to the abdominal parietes, the upper being formed by the inferior surface of the liver; that organ was



bathed with the contents of the sac, and became inoculated, several small cysts, filled with medullary sarcoma, having formed in its substance. There were, also, many isolated cysts, varying from the size of a hazel nut to that of a pigeon's egg, formed in the walls of the cyst; these had no connection with each other, or communication with the general cavity. The uterus was found imbedded in the lower portion or base of the cyst; no trace of the ovaries could be met with; the bladder was small, but not affected by disease.

The peculiar interest of this case arises from the close resemblance to the symptoms of impregnation; the development of a malignant disease seeming, in a great measure, to be influenced by the feelings or instinct of the patient. The author asks, would the girl have died had no connection taken place? How far did the mental and physical excitement act upon the origin or the progress of the disease? Or was it completely independent and its course inevitable?

[It is not improbable that the ovarian excitement, connected with the act of copulation, was the starting point of the disease.]

## PART V.—EDITORIAL.

## ARTICLE I.

## OUR JOURNAL.

Our Journal, as will be seen by the prospectus accompanying this the last number of the volume, is to be continued hereafter, as the North Western Medical and Surgical Journal, a title suggested by a number of our friends and patrons, as the most appropriate one for a medical periodical intended for and sent already into all parts of the North West to more than six hundred subscribers.

In view of the liberal patronage already extended to us, we are led to anticipate a large addition to our subscription list during the coming year, and in order to meet the demand we shall print at least 1000 copies of the forthcoming volume, at an additional expense, which can only be met by an extended circulation and prompt payment, especially from those still in arrears for the volumes already published.

We shall endeavor on our part, by renewed efforts in furnishing matter and making selections, such as will be most useful and interesting to north-western medical men, to sustain the present character of our Journal for being peculiarly well adapted to the wants of practitioners in this region.

All we ask is a continuation of the disposition now manifested by the profession, to aid us in furnishing interesting matter for publication, and the payment voluntary of the small amount required annually to "pay the printer."

Subscribers who are still indebted for the volume just completed, or the preceding one, will receive their bills with this number; and unless prompt payment is made, we shall be compelled in order to pay expenses, to place them at once in other hands for collection.

Payments, made by mail at our risk, will be acknowledged in the list of receipts, which will be published hereafter, from time to time, upon the cover of the Journal.



## ARTICLE II.

## INDIANAPOLIS MEDICAL SOCIETY.

The Physicians of Indianapolis, Indiana, have organized a Medical Society, under the above name, which is to be composed of the regular practitioners of medicine of Marion and the adjacent counties.

Dr. J. H. Saunders, President; Dr. L. Dunlap, Vice President; Dr. J. S. Robbs, Recording Secretary; Dr. T. Bullard, Corresponding Secretary; and, Drs. G. Mead, C. Parry, and L. Dunlap, Censors. Its meetings will be held on the evening of the first Saturday of every month.

We are glad to see the profession organizing in different parts of the country. It shows a spirit of improvement, and cannot have other than a good effect, when a desire to advance in knowledge and improve in social intercourse is the object of association. E

## ARTICLE III.

## CHLOROFORM—THE NEW ANÆSTHETIC AGENT.

Our exchange journals, received since our last issue, are full of reports from various sources, and correspondence between eminent medical men, on the subject of the anæsthetic agent—chloroform.

In our last number, we laid before our readers all that had been received by us on the subject, which, however, only amounted to an announcement of the discovery and a very faint outline of its effects. The amount of matter now before us, which has accumulated since then, is so great, that were we to give but a part only of them in our department of selected matter, we should have but little room for other matter. We shall accordingly endeavor to present, in a condensed form, the most important results that have been deduced by observation and experiments, in regard to the history of chloroform; its uses in the different departments of practice; effects compared with ether; the

best mode of inhalation ; its physiological action, and the dangers to be apprehended from its use, &c., &c.

*Composition.*—Chloroform is chemically the “Sesquichloride of Formyle.” Formyle is the hypothetical radical of formic acid, which takes its name from having been first obtained from the red ant. Formic acid contains carbon 2 equivs., hydrogen 1, oxygen 3. Replace the three equivalents of oxygen by chlorine, and we obtain C 2, H CL 3, the composition of chloroform.

*History.*—It was discovered in 1831, by E. Soubeiran, chief pharmacian to the hospitals of Paris ; about the same time by Liebig, in Germany, and Mr. Guthrie of our own country. A number of the foreign reports fail to mention the name of Mr. Guthrie as one of the discoverers of chloroform. An account of his discovery was published in Silliman’s Journal, (in vols. 21, 22, 1832,) and is mentioned in Wood & Bache’s Dispensatory, under the head of “chlorine ethers,” in the appendix to the edition published in 1839.

While others are contending for the honors of the discovery, American journalists should not allow the merits of their own countrymen to be overlooked. The chemical constitution of chloroform was first investigated by Dumas, who also assigned to it its present name. Flourens is said, by the French, to have been the first to describe its anæsthetic properties. In a paper presented to the Academy, March 8, 1847, he announces the effects of the inhalation of chloroform on a rabbit. He says at the end of some minutes it “was entirely etherized.” “The spinal marrow was exposed and the posterior cords were insensible.” Three out of the five of the anterior cords “had lost their *motricité*. Professor Ives and Dr. N. B. Ives, of New Haven, speak favorably of its effects internally. The U. S. Dispensatory (*loc cit.*) has this remark : “In affections characterized by difficulty of respiration it may be used by *inhalation*.” All agree, however, in awarding to Prof. Simpson, of Edinburg, the merit of having been the first to use it on man for producing insensibility to pain ; to him alone, then,



is due its general introduction as an anæsthetic agent. Dr. S. having used the ether in obstetrical practice, found it liable to several objections; a liability to produce bronchial irritation; its disagreeable and persistent odor, &c., &c. He accordingly tried a number of other volatile fluids said to possess agreeable odors, among others, at the suggestion it is said of Mr. Waldie, chloroform, which alone gave perfect satisfaction. The first public notice of the new agent was made by Prof. S. in a paper read before the Medico Chirurgical Society of Edinburg, on Nov. 10, 1847.

*Preparation and mode of determining its purity.*—Chloroform has been prepared by several different processes. The most economical and simplest, is by the action of chloride of lime upon alcohol, pyroxylic spirit, or acetone. The essentials to its production appear to be the action of chlorine on certain hydro-carbons in the presence of an alkaline base. It is highly important that the product should be carefully freed from the presence of all other compounds. Professor Simpson's formula is perhaps the best. We have used it in our own experiments and find it succeeds well. We give it as communicated by Prof. Simpson to Prof. Meigs, of Philadelphia.

“The following is the formula for chloroform, communicated by Professor Simpson:

“Take of Chloride of Lime in powder,	4 pounds.
Water,	12 “
Rectified Spirit,	12 fluid ounces
	“Dumas.”

The chloride of lime and water being first well mixed together, the spirit is added. Heat is then applied to the still, (which ought not to be more than a third full,) but as soon as the upper part of the still becomes warm, the heat is withdrawn and the action allowed to go on of itself. In a short time the distillation commences, and whenever it begins to go on slowly the heat is again applied. The fluid which passes over separates into layers, the lower of which is chloroform. This, after having been separated from the weak spirit forming the upper layer, is purified by being mixed with half its measure of strong sulphuric acid, added gradually. The mixture, when cool, is poured into a

leaden retort, and distilled from as much carbonate of baryta by weight, as there is sulphuric acid by measure. The product should be allowed to stand over quicklime for a day or two, and repeatedly shaken and then redistilled from the lime."

In conducting the above process a very capacious vessel must be used ; the materials foaming very much during the escape of the chloroform. The vessels used should be of glass, earthenware, wood or lead, for the first process, and of glass for the purification. In the specimens we have ourselves prepared and used, we have omitted the distillation with sulphuric acid. The only impurity we have to suspect being alcohol, the presence of which we are well satisfied is the principal cause of the unpleasant, dangerous and stimulating effects of the impure specimens, we have uniformly adopted washing with distilled water with subsequent distillation, at a very gentle heat, as the sole mode of purification, and have reason to believe that a good article is thus obtained. The washed chloroform may be separated from the water, by subsidence and withdrawal by a pipette, the lower stratum being of course the chloroform. It is stated in a French paper that the stinging sensation which the chloroform produces upon the lips and other delicate parts with which it may once in contact, results from the presence of absolute alcohol. The same report also states that the best test for the purity of the article is derived by dropping the chloroform into water and agitating it. If pure it subsides to the bottom, remaining transparent, and leaving the water, also, transparent ; if impure a milky cloud is produced in one or both strata. We recommend our readers to apply this test before using any specimen they may obtain, as the high price of the pure article may render it an object to adulterate it.

*Comparison of the effects of Chloroform and Ether.*—Prof. Simpson, in a communication to the Medico-Chirurgical Society, of Edinburg, thus compared the effects of these two agents.

"As an inhaled anæsthetic agent, it possesses, I believe,



all the advantages of sulphuric ether, without its principal disadvantages.

1. A greatly less quantity of chloroform than of ether is requisite to produce the anæsthetic effect, usually from a hundred to a hundred and twenty drops of chloroform being sufficient, and with some patients much less. I have seen a strong person rendered completely insensible by seven inspirations of thirty drops only of the liquid.

2. Its action is much more rapid and complete, and generally more persistent. I have almost always seen from ten to twenty inspirations suffice, sometimes fewer. Hence the time of the surgeon is saved; and that preliminary state of excitement which pertains to all narcotizing agents being curtailed, or, indeed, practically abolished, the patient has not the same degree of tendency to exhilaration and talking.

3. Most of those who know from previous experience the sensations produced by ether inhalation, and who have subsequently breathed the chloroform, have strongly declared the inhalation and influence of chloroform to be far more agreeable and pleasant than those of ether.

4. I believe that, considering the small quantity requisite as compared with ether, the use of chloroform will be less expensive than that of ether, more especially as there is every prospect that the means of forming it may be simplified and cheapened.

5. Its perfume is not unpleasant, but the reverse; and the odor of it does not remain for any length of time attached to the clothes of the attendant, or exhaling in a disagreeable form from the lungs of the patient, as so generally happens with sulphuric ether.

6. Being required in much less quantity, it is much more portable and transmissible than sulphuric ether.

7. No special kind of inhaler or instrument is necessary for its exhibition. A little of the liquid diffused upon the interior of a hollow-shaped sponge, or a pocket-handkerchief, or a piece of linen or paper, and held over the mouth and nostrils so as to be fully inhaled, generally suffices in about a minute or two to produce the desired effect."

All observers, whom there is reason to believe have used a *pure* article, coincide with these remarks of Prof. S.; where a difference is observable in the reports, it in all probability is referable to the use of an adulterated article or to a difference in the mode of inhalation. The mode of inhalation preferred by the discoverer, it will be perceived,

avoids the use of all instruments. He prefers as stated by him in other places the silk pocket handkerchief made up into a cup-shape. The use of the inhaler we can readily conceive may produce bad effects in two ways :

1. By not admitting sufficiently freely the oxygen of the air, and, consequently, producing partial asphyxia, together with the normal effects of the chloroform.

2. By permitting the accumulation in the sponge of the instrument, of adulterations less volatile than the chloroform.

In the latter case, the first individuals would inhale the almost pure vapor and experience effects more or less nearly approaching to normal, accordingly as the specimen was more or less pure. Those, however, who should inhale from the instruments after prolonged use, would breathe a mixed vapor of chloroform and of the less volatile liquids present, from which the pure effect could scarcely be expected. We have frequently breathed by means of a tube, from a bottle containing a solution of chloroform in alcohol; the first inspirations had the odor, taste and effects of almost pure chloroform, but after a time, the vapor of alcohol predominated and ultimately was left by itself.

*Uses of Chloroform in the different departments of practice of Medicine and Surgery.*—The advantages derived from the use of the agent in *surgical operations* is now established beyond controversy. The journals are full of evidence on this subject, from the hospitals on the continent, in the British Isles, and in America. It is stated that aside from the freedom from pain, patients recover more rapidly, and the average success of operations is increased.

In *obstetrical practice* the evidence is strong in favor of its use. Professor Simpson states that recently he has used it, with few and rare exceptions, in every case of labor which has been under his care, and the results have been most happy and gratifying. "I never," says he, "had the pleasure of watching over a series of more perfect or rapid recoveries; nor have I once witnessed any disagreeable results to either mother or child." Reports from other sources bear testimony to the same.



In *Insanity*, though evidence is wanting to prove chloroform a *curative* agent in chronic cases of mania, it is shown to be exceedingly valuable. In cases of dementia with excitement and wakefulness it has produced a good effect.

In *Delirium Tremens* it has produced critical sleep and apparent cure. In *puerperal mania* it has procured sleep and calmed the excitement so as at least to aid in the cure.

Professor Simpson recommends it as an *antispasmodic* in asthma, laryngismus, tetanus, hooping-cough, dysmenorrhœa, colic, and the pain attending the passage of biliary calculi. As a *diffusible stimulant*, in *small doses*, to arrest the commencement of ague, in hysteria, &c., and as a narcotic in neuralgia.

*Physiological action.*—A committee of the Edinburg Medico-Chirurgical Society, after an extensive series of experiments on men and animals, report, that chloroform inhalation like that of ether, seems to produce loss: “1. Of the cerebral functions; 2. Of the spinal functions; and, thirdly, of those of the medulla oblongata.” The loss of consciousness is referred to the effect on the cerebrum, and occurs first in point of time; if the inhalation continues, spinal symptoms appear, such as tetanic spasms, involuntary evacuations, and hysterical symptoms; and, if pursued too far, respiration and the heart’s action may become so enfeebled as to result in death. In all the animals killed by it, the right side of the heart was engorged with venous blood. The effects upon the blood require yet to be examined more fully, nothing determinate having yet been announced.

*Danger attending its use.*—From the effect on animals there remains no doubt that chloroform may produce death. It is consequently a curious fact that so few instances of bad effects have resulted from its indiscriminate use, even for purposes of amusement and by uninformed persons. Though several newspaper paragraphs have met our eye mentioning unpleasant, and even fatal effects, we have before us, in professional journals, but a single fatal case,—that of Mrs. Simmons, of Cincinnati. We had intended giving the report in full, but our space will not admit it.

It may be found in the Western Lancet, of March, 1848. Death resulted within ten minutes from commencing to inhale, apparently, from the effect on the heart and respiratory muscles. The brain and lungs, though somewhat, were not extensively congested; general aspect, color, and consistence of the brain normal; pleura highly injected with some effusion; heart flaccid *and all its cavities entirely empty*; the *aorta, pulmonary artery and cava all empty*; blood fluid as water in every part of the body; not a coagulum was seen in any vessel; globules altered; color in every part of the system was that of dark venous blood. The chloroform was of specific gravity, but 1.3. contained some alcohol, and was applied with Morton's inhaler. We do not wish to pre-judge in the case, but we are inclined to refer the bad effects to the alcohol accumulated in the manner we have expressed above.

*Antidote to the effects.*—None has yet been mentioned. We have been informed by Mr. B. H. Bartlett, of this city, (Chicago,) that he has found morphia sulph. placed upon the tongue and allowed to dissolve in the mouth, to remove the effects, very rapidly, of both ether and chloroform. He uses  $\frac{1}{2}$  gr. repeated every few minutes. Before our next we will test the value of the suggestion.

We subjoin the remark, (omitted in its proper place,) that the chloroform should have a specific gravity of 1.48. M. Soubeiran, in a late memoir read to the Academy of Sciences, in Paris, "tells us that a rapid method of approximating to this, is by making equal parts of strong sulphuric acid and water, and allowing the mixture to cool. A few drops of the chloroform poured into the fluid ought to sink to the bottom, if sufficiently pure for medical use; but if they float on the surface, the chloroform should be rejected."

J. V. Z. B.



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